

FOREIGN
DISSERTATION
10021

DEC 27 1912
EXCHANGE

UC-NRLF



B 2 605 099

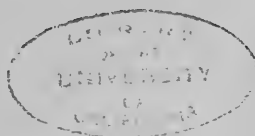
THE KALĀS - -

INAUGURAL DISSERTATION

PRESENTED TO THE
PHILOSOPHICAL FACULTY OF THE
UNIVERSITY OF BERN

FOR THE
DEGREE OF DOCTOR
OF PHILOSOPHY - -

BY
A. VENKATASUBBIAH



✓
THE VASANTA PRESS,
- ADYAR, MADRAS -
- - 1911 - -

B 2605099

FD 10021

THE KALĀS - -

INAUGURAL DISSERTATION

PRESENTED TO THE

PHILOSOPHICAL FACULTY OF THE

UNIVERSITY OF BERN

----- FOR THE -----
DEGREE OF DOCTOR
OF PHILOSOPHY - -

BY

A. VENKATASUBBIAH

THE VASANTA PRESS.

- ADYAR, MADRAS -

- - 1911 - -

Angenommen von der philosophischen Fakultät auf
Antrag des Herrn Prof. Dr. Müller-Hess.

Der Dekan :
PROF. DR. GRAF.

BERN, 4. November 1910.

BIBLIOGRAPHICAL INDEX

- Agnipurāṇa ; Ānandaśrama Series, Poona.
Anuyogadvārasūtra ; Calcutta, Saṃvat 1936.
Aupapātikaṃ ; by Leumann in Abhandlungen für die Kunde
des Morgenlandes, Vol. 7, 1881.
Beal : The Romantic Legend of Śākya Buddha, London, 1875.
Bhagavatīsūtra, Benares, Saṃvat 1938.
Böhtlingk's Smaller Lexicon, referred to as B.
Böhtlingk and Roth's Lexicon, referred to as B. R.
Brihat Saṃhitā ; ed. by Kern, Bibliotheca Indica Series ; referred
to as Brihat.
Campūrāmāyaṇa ; Nirnayasagar Press, Bombay, 1907.
Catalogue of Sanskrit MSS. in the Bodleian Library at Oxford ;
by Aufrecht.
Daṣakumāracaritaṃ : 2 parts, Bombay Sanskrit Series ; referred
to as Daṣa.
Dīgha Nikāya ; by Rhys Davids and Carpenter, Pāli Text So-
ciety, London, 1890, referred to as Dīgha.
Divyāvadāna ; by Cowell and Neil, Cambridge, 1886 ; referred
to as Divya.
Garuḍapurāṇa ; ed. by Jivānanda, Calcutta, 1890.
Hemacandra's Abhidhānacintāmaṇi ; ed. by Böhtlingk, Berlin.
Indische Studien ; ed. by Weber, Berlin and Leipzig.
Indrajālavidyāsaṃgraha ; ed. by Jivānanda, Calcutta, 1891 ;
referred to as Indrajāla.
Jaina Sūtras translated by Jacobi. S. B. E. Vol. 22, 45.
Jātaka ; 6 Vols. ; ed. by Fausboll, London, referred to as Jāt.
Jātakamālā ; Kern, Boston, 1891.
Kādambarī ; ed. by Peterson, Bombay Sanskrit Series.
Kalpa Sūtra ; ed. by Jacobi, 1879.
Kathāsaritsāgara, Bombay, 1889.

- Kāvya prakāṣa, Bombay Government Publication, 1901.
 Lalitavistara ; ed. by Rājendralāla Mitra, Calcutta, 1877.
 Mahābhārata ; Kumbhakonam Edition.
 Mahāvamṣa ; ed. by Turnour, Colombo, 1837.
 Mahāvastu ; ed. by Senart, 3 Vols., Paris, 1897.
 Mahāvīyutpatti ; ed. by Minayeff, Petersburg, 1887, referred to
 as Vynt.
 Molesworth's Marāṭhi-English Dictionary, 1857.
 Monier-Williams' Sanskrit-English Dictionary, 1899.
 Nandīsūtra, Calcutta, Saṃvat 1936.
 Pannavaṇā Bhagavayī, Benares, 1884.
 Praśnavyākaraṇaṃ, Calcutta, Saṃvat 1933.
 Rājapraśnīyaṃ, Calcutta, Saṃvat 1936.
 Rāmāyaṇa, by Gorresio, Paris, 1843-44.
 Samavāya Sūtra, Benares, 1880.
 Specimen der Nāyādhammakahā, by Steinthal, Leipzig, 1881.
 Śrītatvanidhi, Bombay, Śaka 1822.
 Subhāshitaratnabhāṇḍāgāraṃ, Bombay, 1905.
 Śukranītisāra, Vol. I. ed. by Gustav Oppert, Madras, 1882.
 Sūtrakritāṅgasūtra, Bombay, 1880, referred to as Sūtra.
 Vātsyāyana's Kāmasūtra, Bombay, 1901.
 Vāyupurāṇa, Ānandāśrama Series, Poona.
 Verzeichnis der Sanskrit and Prakrit Handschriften in der
 Königlichen Bibliothek zu Berlin, by A. Weber referred
 to as Berliner Verzeichnis.
 Vetālapancaviṃṣatikā ; by H. Uhle in the Abhandlungen für
 die Kunde des Morgenlandes, Leipzig.
 Vipākasūtraṃ, Calcutta, Saṃvat 1933.
-

PREFACE

IN the following pages I have attempted to give an account of the various 'arts and sciences' (Kalās) which are mentioned in Indian Literature, chiefly, with the object of contributing towards its elucidation. The object of the essay being more literary than historical, I have not endeavored to follow the development of the arts from the beginning and to discuss the influence of other civilisations upon them as well as the part played by each art in the civilisation of India. All this, however interesting and useful, is outside the scope of this essay, which confines itself to giving the names of all the Kalās that I was able to find in Indian Literature. There are, thus, nine lists of Kalās given here with their various readings. Another list differing from all the above ones is mentioned as occurring in the *Kalpasaṃhitā* (a book whose name is not found in the *Catalogus Catalogorum*) by Jīvagoṣvāmin. His commentary to the *Śrīmad Bhāgavata* actually gives the first three items of this list—'paracittajnatā' (telepathy), *dūraṣravaṇadūradarṣanacintā* (clairaudience and clairvoyance) and 'ratnāmṛitaviṣeṣhanirmāṇam' (making of various kinds of precious stones and elixirs of life).

In conclusion, I desire to acknowledge the deep debt of gratitude which I owe to Prof. Müller-Hess, under whose guidance these pages were written, for his many acts of kindness towards me during my stay in Bern.

A. V.

Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation

THE KALĀS

Students of Indian Literature cannot proceed very far in their studies without meeting with the word 'Kalāh'* in the sense of 'arts' or 'sciences' Sanskrit Literature and the literature of the Buddhists and the Jains abound in references to the Kalās. Thus, for example, we find the Kalās referred to in the following places:—

मुनिवेशप्रतिच्छन्ना स्तत्र गच्छन्तुयोषितः ।

उपायज्ञाः कलाज्ञाश्च वैशिके परिनिष्ठिताः ॥

(Let women who are clever, know the Kalās and who live by courtesanship, go there, hidden under the guise of sages.)

Rāmāyaṇa, I. 9. 5.

नानाशिल्पकलाज्ञश्च भवेरपिपरन्तप ।

(Become learned, O destroyer of foes, in the different arts and sciences.)

Rāmāyaṇa, Vol. I., p. 301-5.

अहोरात्रैश्चतुःषष्ट्या संयत्तौ तावतीः कलाः ।

गुरुदक्षिण्याचार्यं छन्दयामासतुर्नृप ॥

* The word kalā is also used to denote—1/16th part of the moon, 1/50th part of the 'praṇavā or the syllable' Om, 1/16th part of 'purusha', a fraction of time, a fraction of the zodiacal circle, interest on capital, etc. See Śabdakulpadruma and also Tārānātha's Dictionary *sub.* 'kalā.'

[O king, these two,—(*i.e.* Kṛishṇa and his brother Balarāma)—having in sixty-four days learned as many Kalās, pleased their preceptor by the offer of fees.]

Sṛīmad Bhāgavata, X. 45-36.

इत्येवमाद्यासु सर्वकर्मकलासु..... बोधिसत्त्व एव विशिष्यतेस्म

(In all the Karma-kalās, beginning with the above-mentioned ones, the Bodhisatva alone was pre-eminent.)

Lalitavistara, p. 179.

चतुः षष्टिकामकलितानि † चानुभविया

नूपुरमेखला अभिहनी विगलितवसनाः ।

कामसराहता स्समदनाः प्रहसितवदनाः

किन्तव आर्यपुत्र विकृतं यदि न भजसे ॥

(What abnormality is this in you, O Āryaputra, that you do not receive us, who are wounded by the arrows of Kāma; us, who have experience in the sixty-four Kāma-kalās; us, whose clothes have slipped off, whose faces are smiling, and whose girdles and anklets are tinkling from fervid passion?)

Lalitavistara, p. 417.

अपरोक्षबुद्धिर्विविधविकल्पाश्रयासु कलासु ।

(Whose mind was no stranger to the different Kalās.)

Jātakamālā, p. 105.

लेहाइयाओ गणियप्पहाणाओ सउणरूपज्जवसाणाओ बावत्तरिं
कलाओ.

(The seventy-two Kalās consisting chiefly of 'gaṇita'

† कलितानि = कलाः

etc., beginning, with 'lekha', and ending with 'śakunaruta.')

Kalpa Sutra, p. 74.

Anupapātikam, p. 77.

Prasnavyākaraṇam, p. 321, etc.

मातृवदस्याः कला स्सन्ति न सन्ति ।

(Are the Kalās to her like a mother or not?)

Mahābhashya I. 1, 57; quoted

in Ind. Studien, 13, p. 471.

चतुःषष्टिकलागमप्रयोगचतुरः

(Skilled in the knowledge and practice of the sixty-four Kalās.)

Daśakumāracarita, II. 21.

अयं सकलकलाप्रवीणः.....भूसुरकुमारः ।

(This Brahmin boy skilled in all the Kalās.)

Ibid. I. 27.

उत्पत्तिःकलानाम्

(The source of the Kalās.)

Kādambarī, p. 5.

निखिलशास्त्रकलावगाहगम्भीरबुद्धिः ।

(Whose intellect is profound by having mastered all the sciences and arts.)

Ibid. p. 56.

The Kalās are referred to frequently in Vātsyāyana's Kāmasūtra, *e.g.*, in pages 42, 95, 177, etc.

They are also mentioned by later writers such as Vāmana, Māgha, Bhavabhūti, etc. Daṇḍin, the author of the Kāvyaadarśa, seems to have even written a book upon them called 'Kalāpariccheda.' (See Peterson's Introduction to Daśakumāracarita, p. 5.)

The word Kalā comes from the root 'kal' (kalayati) meaning 'to go,' 'to know;' कल गति-सङ्ख्या नयोः, Dhāt. 35, 13.)

As regards the number of the Kalās, Vātsyāyana and the Śrīmad Bhāgavata speak of sixty-four; the Jain books uniformly mention seventy-two, while the Lalitavistara refers to sixty-four Kāmakalās and at the same time mentions 86 Kalās and adds इत्येवमाद्यासु *et cetera* (p. 179). Yaśodhara, in his commentary to the Kāmasūtra (p. 32), says that there were 512 Kalās! The later Sanskrit writers, however, give the number of Kalās as 64, whenever they mention the number; *e.g.*,

इत्थं कलाचतुःषष्टिविरोध स्साधु नीयताम् ।

Kāvyādarśa, III. 171.

And this number—namely 64—seems after all to have been the original one. For, in p. 95 of his Kāmasūtra, Vātsyāyana says that the number of Kāmakalās was fixed as 64 on the analogy of the R̥gveda-Saṃhitā; *i.e.*, the subdivisions of the 10 divisions of the Kāmasūtra were called 'catuṣ-shasṭī,' because the subdivisions of the 10 Maṇḍalas of the R̥gveda-Saṃhitā are 64, and because the names of the authors are the same—Pancāla. The Jaina Sūtras, too, which, according to Jacobi, were composed about 300 B. C., speak of चतुसष्टिं महिलागुणे (Praśnavyākaraṇa, p. 321 and 458; Vipākasūtra, p. 55, etc.). The commentator, Abhayadeva, takes this term to mean the 64 Kāmakalās mentioned by Vātsyāyana (आलिङ्गनादीना मष्टानां क्रियाविशेषाणां वात्स्यायनाभिहितानां प्रत्येकं अष्टभेदत्वा चतुःषष्टिं महिलागुणा भवन्ति ;

गीतनृत्तादयोवा स्त्रीजनोचिता वात्स्यायनाभिहिता श्रुतुःषष्टिरेव.

Praṣnavyākaraṇa, p. 321.

आलिङ्गनादीनां अष्टानां कामकर्मणां प्रत्येकं अष्टभेदत्वेन चतुःषष्टि
महिलागुणा वात्स्यायनप्रसिद्धाः.

Ibid. p. 458.

Judging by these two traditions, the list of 64 Kāmakalās (Pancāla's list) seems to be very old, as it seems to have been composed before the Jaina Sūtras, and at a time when the division of the Rik-Saṃhitā into 64 chapters was felt as recent.

I shall now give the different lists of Kalās as found in various books.

LIST I. (Samavāyasūtra).

1. लेहम् *i.e.*, लेखम्—Writing of various scripts. The 4th Upanga, Pannavaṇā Bhagavayī (p. 62) as well as the Samavāya Sūtra (p. 54) give a list of 18 scripts—Bambhī, Javaṇāliya, Dāsāpurisā, Kharuṭṭi, Pukkharasāriyā, Bhogavaiyā, Paharāiyā, Antakkhariyā, Akkharapuṭṭhiyā, Veṇaiyā, Niṇhaiyā, Aṃkalivī, Gaṇitalivī, Gandhavvalivī, Āyāsativī, Māhesarī, Domilī, Polindī. For another list of 18 scripts, see Ind. Stud. 16, p. 401, Kalpāntarvācyāni, Berliner Verzeichnis, II. p. 663, and Nandisūtra, pp. 376, 377.
2. गणियम् *i.e.*, गणितम्—Computation.
3. रूपम् *i.e.*, रूपम्—Sculpture, painting, cutting forms in cloth, gold, wood, etc.
4. नट्टम् *i.e.*, नृत्यम्—Dancing. The Rāja. mentions 32 modes of dancing, pp. 90-95.
5. गीयम् *i.e.*, गीतम् }
v.l. गायम् } Singing.

6. वाद्यम् *i.e.*, वाद्यम्—Playing on musical instruments: Malayagiri's commentary on the Rāja. gives the names of 58 musical instruments beginning with ṣankha, ṣṛiṅga, ṣṛiṅgikā, peyā, etc., (pp. 82-84).

With regard to 4, 5, 6, compare Brahmajāla-sutta, Dīgha. I. 6.

7. सख्यम् *i.e.*, स्वरगतम्—Knowledge of the 7 'svaras'—shadja, ṛishabha, gāndhāra, etc., according to Megharāja, Sīlānka, Harṣhakūla and the author of the Kalpāntarvācyāni. Comp. 'saram', Sūtra. 2. 2. 26.

8. पुक्खरगयम्—Playing the 'pushkara', a kind of drum; compare 'ekapokkharā' Jātaka, VI, p. 21.

9. समतालम्—Probably for 'sammatālam,' Sanskrit 'samyātālam' or 'sāmpātālam,' (See Śabdakalpadruma) a kind of cymbal. Cp. 'sammatālam ca vīṇam ca' Jātaka VI. 277, 6, Milindapaṇha 60, Theragāthā, 893, 911.

Megharāja and the author of the Kalpāntarvācyāni, however, interpret this term as 'beating time correctly to music (tālamāna).'

10. जूयम्—Gambling. Compare 'jūtapamādaṭṭhānānn-yoga' (addicted to games and recreations), Brahmajāla, Dīgha. I. 6.

11. जणवायम्—People's talk *i.e.*, common rustic talk. Megharāja explains this term as 'the art of speaking and discussing with people'.

12. पोरेवच्चम् } Citizens' talk *i.e.*, courteous
r.l. पोरेकव्वम्; पोरेकच्चम् } language, as opposed to rustic
talk. Megharāja and the author of the

Kalpāntarvācyāni explain this term as 'the art of ruling and protecting a city' and 'the art of being in the forefront' respectively.

13. अद्रावयम्—A game played on a board of 64 squares. Compare 'abhyasyatā ashtāpadavyāpārāṇi (practising movements in the game of 'ashtāpada') Kādambarī, p. 88.
14. दग्माद्रियम्—The art of mixing water and clay, according to Megharāja.
15. अण्णविहिम्—Rules relating to food; *i.e.*, how to prepare food, etc. Compare 'annasannidhi' Dīgha. I. 6.
16. पानविहिम्—Rules relating to drink; how to prepare drinks, etc. Compare 'pānasannidhi', Dīgha. I. 6.
17. लेणविहिम्—Rules relating to dwelling places.
18. सयणविहिम्—Rules relating to beds. Compare 'sayanasannidhi', Dīgha. I. 6.
19. अज्जपहेलियम्—Verses in Āryā metre, and riddles. 'Āryā' is the name given to a certain class of metres, which includes 'āryā' proper, gīti, etc. For 'prahelikā', see No. 28 in List III.
This term is given as 2 words 'ajjaṇi' and 'paheliyaṇi' in some copies of the Samavāya.
20. मागहियम्—Verses in the Māgadhi language.
21. गाहम्—The Gāthās.
22. सिलोगम्—Slokaṣ *i.e.*, verses in Sanskrit.
23. गन्धजुत्तिम्—Preparation of perfumes by mixing different substances. See Chap. 77, Bṛihat Saṃhitā.
24. मधुसिन्धुम्—Wax; *i.e.*, probably, wax-modelling. Comp. Vyut. 245, 709. How to mix and use the 6

‘rasas’—‘madhura,’ ‘amla,’ ‘lavana,’ etc., according to Megharāja!

25. आभरणविहिम्—Rules relating to ornaments.
26. तरुणीपङ्क्तिम्—How to adorn a young maiden. Comp. ‘itthikumārikā patiggahaṇam (accepting women and girls)’, Dīgha. I. 5.
27. इत्थीलक्षणम्—Marks of women. Comp. Sūtra. 2.2.26. Bṛihat Sam., Chap. 70.
28. पुरिसलक्षणम्—Marks of men. Cp. Sūtra. 2.2.26. See Chap. 68, Bṛihat Sam.
29. हयलक्षणम्—Marks of horses. Cp. Sūtra. 2.2.26. See Bṛihat. Chap. 66.
30. गयलक्षणम्—Marks of elephants. Cp. Sūtra. 2.2.26. See Bṛihat. Chap. 67.
31. गोणलक्षणम्—Marks of bulls. Cp. Sūtra. 2.2.26. See Bṛihat. Chap. 61.
32. कुकुडलक्षणम्—Marks of cocks. See Bṛihat. Chap. 63. Compare Sūtra. 2.2.26.
33. मिण्डलक्षणम् } Marks of goats. See Chap. 65 of
v.l. मिण्डलक्षणम् } Bṛihat Saṃhitā. Compare ‘meṇḍa-
lakkhaṇam,’ Dīgha. I. 9. Sūtra. 2.2.26.
34. चकलक्षणम्—Marks of discuses. Cp. Sūtra. 2.2.26.
35. छत्तलक्षणम्—Marks of umbrellas. See Bṛihat Sam. Chap. 73. Compare Sūtra. 2.2.26.
36. दण्डलक्षणम्—Marks of sticks. Comp. Sūtra. 2.2.26.
37. असिलक्षणम्—Marks of swords. See Bṛihat. Chap. 50. Comp. Sūtra. 2.2.26.
38. मणिलक्षणम्—Marks of gems. See Bṛihat Sam. Chap. 80-83; and Garūḍa Purāṇa, Chap. I. 68—
I. 80. Comp. Sūtra. 2.2.26.

39. कागणिलक्खणम्—Marks of Jewels. Comp. S.B.E. xlv.366; Divya, 396-8, and Sūtra. 2.2.26.
40. चम्मलक्खणम्—Marks of shields. Compare Sūtra. 2.2.26.
41. चन्दलक्खणम् } Probably a mistake for 'canda-
v.l. चन्दयलक्खणम् } cariyam' (movement of the moon.)
Comp. Sūtra. 2.2.27. Megharāja, however, explains this word as 'the knowledge of when the moon will be eclipsed, etc.'
42. सूरचरियम्—Movement of the sun. Comp. S. B. E. xlv.366, Divya. 630 and Sūtra. 2.2.27.
43. राहुचरियम्—Movement of Rāhu.
44. गहचरियम्—Movement of the planets. Compare Divya. 630.
45. सोभागकरम् } —Art to make one happy. Comp.
v.l. सोभाकरम् } 'subhagākaraṇaṃ' Dīgha, I. 11;
'subhagākaraṇaṃ', Sūtra. 2.2.27, S. B. E. xlv.366.
See Brīhat. Chap. 75, and p. 37 in Indrajāla-vidyāsaṃgraha.
46. दोभागकरम् } Art to make one miserable. Com-
v.l. दोभाकरम् } pare 'dubbhagākaraṇaṃ' Dīgha, I. 11;
'dubbhagākaraṇaṃ' Sūtra. 2.2.27; S. B. E. xlv.366. See Indrajāla-vidyāsaṃgraha, p. 73.
47. विज्ञायम्—What is contained in the Vidyās. The number of Vidyās is given sometimes as 14 (Vāyu Purāṇa, Chap. 61-78), and sometimes as 18 (Vāyu Purāṇa, 61-79; Jātaka, I. 399, I. 463, etc.) They consist of the 4 vedas, 6 Vedāṅgas, and the Purāṇas, Itihāsas, Logic, etc.
48. मन्तयम्—What is contained in the 'Mantras'.
49. रहस्ययम्—What is contained in the 'Rahasyas'.

50. सम्भावम्—Obscure; probably what happens in the future. Compare ‘sambhāvanā’ Vyut. 245, 884.
51. वारम् } The poison craft. Compare Dīgha. I. 9;
v.l. चारम् } Abhidhānacintāmaṇi, 1314.
- The Benares edition gives terms 51 and 52 as 1 word—‘sabhāsancāraṃ’.
52. पडिवारम् } Antidotes to poisons; *i.e.*, how to
v.l. पडिचारम् } administer antidotes to poisons.
53. ब्रूहम्—Vyūhas; *i.e.*, arrangement of the army in different shapes; *e.g.*, like a cart, lotus, vulture etc. Comp. Dīgha. I. 6, Vinaya, IV. 107. Manusmṛiti, VII. 187, 188, 191.
54. पडिब्रूहम्—Counter-Vyūhas.
55. खन्धावारमाणम्—Measurement of camps.
56. नगरमाणम्—Measurement of cities.
57. वत्थुमाणम्—Measurement of houses.
58. खन्धावारनिवेसम्—How to lay out a camp; encamping.
59. नगरनिवेसम्—Building cities.
60. वत्थुनिवेसम्—Building houses.
61. ईसत्थम्—Shooting arrows.
62. छरुप्पवायम्—Sword-strokes. Compare Divya 100; ‘tsarusmiṇi’, Mahāvastu, III. 184-8; Vyut. 217-10 (corrected from ‘sarau’); and ‘tharugañhanam’, Jātaka III. 420-9.
63. आससिक्खम्—Breaking and training of horses.
64. हत्थिसिक्खम्—Training of elephants. Compare ‘hastisikshām aṣṣaṣikshām’ Mahābhārata, II. p. 80.
65. धणुवेदम्—The science of the bow. Cp. Vyut. 216-9.

66. हिरण्णवादम् } Melting, combination, reduction to
 v.l. हिरण्णपागम् } powder etc., of silver, according
 to Megharāja.
67. सुवर्णपागम्—Melting, combination, etc., of gold.
68. मणिपागम्—Melting, combination, etc., of precious
 stones.
69. धातुपागम्—Melting, combination, etc., of minerals.
 Compare 'dhātuvādin' (metallurgist) Vyut.
 186, 84.
70. बाहुजुद्धम्—Fighting with hands.
71. दण्डजुद्धम्—Fighting with sticks.
72. मुट्ठिजुद्धम्—Fighting with fists, boxing.
73. अट्ठिजुद्धम्—Fighting with bones (!); perhaps for 'asi-
 juddham' Cp. List IX. 68. This term is not
 given in the Benares edition.
74. जुद्धम्—Fighting.
75. निजुद्धम्—Fighting in a *melee*. Comp. 'nibbuddham',
 Dīgha. I. 6; Cullavagga, I. 13-2; Milinda, 232.
 For terms 71-76, compare Dīgha. I. 6.
76. जुद्धातिजुद्धम्—Fighting so as to surpass another's
 fighting, according to Megharāja.
77. सुत्तक्खेड्डम्—Playing with string. Compare no. 26 in
 list III.
78. नालियाखेड्डम्—Playing with arrows. In Dīgha. I. 7,
 Rhys Davids translates 'nālikam' by 'reed-
 cases for drugs'. The meaning 'arrow' (see
 B.) seems to be better here. See also Za-
 chariae: Beitrāge zur indischen Lexicographie
 p. 85. Megharāja explains this term as

‘playing with lotus-stalks’. Cp. ‘nālikau padma-nārācau’ Trikaṇḍaśeṣha, 581.

79. वटखेडुम्—*i.e.*, ‘Vṛittakṛīḍā’ playing with songs; comp. Jāt. III. 447. The author of the Kalpāntarvācyāni explains this term as ‘playing with cloth.’
80. धम्मखेडुम्—Playing with bows. Cp. ‘dharmo hinso-pamāyogopanishatsu dhanushshvapi’ Trikaṇḍaśeṣha, 851.
81. चम्हरेवत्तम्—Obscure. The Benares edition gives instead ‘cammakheddam’—(playing with shields.)
82. पत्तछेय्यम्—Trimming of leaves in different shapes and figures. Comp. Bṛihat-kathā IX. 2. Kuṭṭānīmatam, Verse 74, Ayārāṅgasutta, II. 12, Vyut. 186-122.
83. कडगछेय्यम्—Making of eardrops, bracelets, etc., out of gold, etc. (Megharāja).
84. पत्तगछेय्यम्—Cutting or trimming of leaves.
This term is not given in the Benares edition.
85. सजीवम्—Gambling with animate things; *i.e.*, betting on cocks, horses, etc.
86. निजीवम्—Gambling with inanimate things—dice, etc. Comp. ‘sajīvam’ and ‘nirjīvam’ in p. 31 of Vātsyāyana’s Kāmasūtra and Daṣa. I. 42-2. Megharāja and the author of the Kalpāntarvācyāni explain the above two terms as ‘infusing life into artificial forms of men and animals’ Cp. ‘Vetālim’ (art of raising a stick to life) and (‘taking away life’). Sūtra. 2.2.27 and Childer’s Pāli Dictionary.

87. सङ्गस्यम्—Knowledge of the cries of birds. Comp. 'śakunavidyā' Divya. 630.

Of these, only 72 enter into the list of Kalās; the remaining Kalās, remarks Abhayadeva, are included in those 72 which form the list.

The above list is given in Indische Studien 16, in the Berliner Verzeichnis, II. 410, and the Benares edition of the Samavāya Sūtra. In all of these, the number of items given exceed 72.

The Nāyādhammakahā, (p. 29), the Aupapātikaṃ, (p. 77) and the Rājaprasāniya (p. 290) give lists of Kalās which contain exactly 72 items. These lists, though substantially the same as the Samavāya list, yet contain some terms not found in it. These 3 lists, too, differ from each other in slight respects.

Thus the Nāyādhammakahā list runs thus:—

(The nos. refer to the Samavāya list.)

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, Pāsayaṃ (A kind of play with dice, compare 'suvāṇṇapāsake' Jat. VI. 281-11; I, 290-1, etc.), 13, Porekavvaṃ, 14, 15, 16, Vilevaṇavihiṃ (Rules concerning ointments), Vattavihiṃ (Rules concerning cloths), 18, Ajjaṃ, Paheliyaṃ. 20, 21, Gītiyaṃ (A species of Prākṛit verse), 22, Hiraṇṇajuttiṃ (Combination of silver), Suvāṇṇajuttiṃ (Combination of gold), Cuṇṇajuttiṃ (Adding powder to melted copper, etc., so as to turn it into gold; see Kathāsaritsāgara, VII. 1, 82-90), 25, 26, 27, 28, 29, 30, Gaṇalakkaṇaṃ, 32, 35, 36, 37, 38, 39, Valthuvijjaṃ (The art

of building houses), 55, 56, 53, 54, 51, 52, Cakkavūhaṃ (Arranging an army in the shape of a wheel), Garulavūhaṃ (Arranging an army in the shape of 'garuda' i.e., a kite), Sagadavūhaṃ (A 'vyūha' in the shape of a cart), 74, 75, 76, 73, 72, 70, Layājuddhaṃ (Fighting with bine), 61, 62, 65, 66, 67, 77, 79, 78, 82, 83, 85, 86, 87.

LIST II. (Lalitavistara).

This list is given in p. 178, Lalitavistara.

1. लङ्घितम्—Jumping. Vyut. 217-25. Comp. 'laṅghane plavane tathā', Rāmāyaṇa, Vol. I. 306-19.
2. प्राक्चलितम्—Leaping.
3. लिपिमुद्रागणनासङ्ख्यासालम्भधनुर्वेदाः—Writing, 'mudrās', computation, numbers, wrestling and the science of the bow.

लिपि (Vyut. 217-2) means writing. On p. 143 of the Lalita. are mentioned the names of 64 scripts—Brāhmī, Kharoshthī, Pushkarasārī, etc. Compare Daṣakumaracarita, I. 11-13, 'sakala-lipijnānam', and I. 1.*

मुद्राः (Vyut. 217-3) are figures formed by the hand—sometimes with one, sometimes with both—or by the fingers of the hand. They are said to possess much occult power and are described fully in books on Tantra. Rhys Davids' translation of 'mudrā' as 'counting on the fingers' (Digha. I. 11) seems to be wrong. (See B. and B. R.)

* Roman figures followed by Arabic figures refer to the lists and the items therein given, when no book is mentioned.

गणना (Vyut. 217-5) means computation. On p. 169 of the Lalita. are mentioned different varieties of computation, dhvajāgravatī, etc. Cp. I. 2.

सङ्ख्या (Vyut. 217-4) means numbers, enumeration. On p. 169 are given many numbers beginning with 'koṭi', 'ayuta', 'niyuta', etc.

सालम्भ (Vyut. 217-26) means wrestling. See p. 174. Lalita.

धनुर्वेदः is the science of the bow. Compare 'saṃkhyāyām gaṇanāyām mudrāyām' etc. Divya. 3-17, 'muddāgaṇanāsankhālekhāsippatṭhanesu' Mil. 59. 13 and I. 65.

4. जवितम्—Running. (Vyut. 217-27.)
5. हवितम्—Diving. (Vyut. 217-28). Compare 'laṅghane plavane tathā', Rāmāyaṇa, Vol. I. 306, 19.
6. तरणम्—Swimming. Comp. 'nadyāditarane', Mahāvastu, III. 184-8.
7. इष्वलम्—Shooting arrows. Cp. I. 61, and 'isattham', Jāt. VI. 77-26; 81-12, etc.
8. हस्तिप्रीवा—The elephant's neck; i.e., riding on elephants. (Vyut. 217-30.)
9. रथः—The chariot. (Vyut. 217-32.)
10. धनुक्लापः—All things connected with the bow. (Vyut. 217-33.)
11. अश्वपृष्ठम्—Horseback; i.e., riding on horseback. (Vyut. 217-31.) As regards 8 and 11, compare Daśakumāracarita, I. 11, 17, 'mātangaturangādivāhanārohaṇapāṭavaṃ', and 'aśvapriṣṭhe rathe nāge', Rāmāyaṇa, Vol. I. 301. 3.
12. स्थैर्यम्—Steadiness.

13. **स्याम**—Strength.
14. **सुशौर्यम्**—Valour.
15. **बाहुव्यायामः**—Gymnastics. (Vyut. 217-34). Cp. 'ku-salo vyāyāmeshu tathaiva ca', / Rāmāyaṇa, Vol. I. 306-17.
16. **अङ्कुशग्रहपाशग्रहाः**—Holding the 'Ankuṣa' and 'Pāṣa' (two weapons). (Vyut. 217-9.)
17. **उद्याननिर्याणम्**—Going up and going off.
18. **अपयानम्**—Going away. (Vyut. 217-15.)
19. **मुष्टिवन्धः**—Clenching the fists. (Vyut. 217-6). Cp. Divya. 58-100.
20. **शिखाबन्धः**—Tying the 'ṣikhā' or tophair of the head in a knot. (Vyut. 217-7). Cp. Divya. 58-100.
Rhys Davids translates 'ṣikhā' as 'necklaces, Dīgha. I. 7, which seems to be incorrect; see B. R. under 'ṣikhā'.
21. **छेद्यम्**—Cutting. (Vyut. 217-16.) Comp. Divya. 100-442.
22. **भेद्यम्**—Piercing. Cp. Vyut. 217-17, and Divya. 100-442.
23. **तरणम्**—Guiding a boat or ship.
24. **स्फालनम्**—Beating. (Vyut. 245-1254).
25. **अक्षुण्णवेधित्वम्**—Art of throwing a spear so as to graze the mark. (Vyut. 217-22.) Cp. Divya. 58-100; 'akkhaṇavedhi', Jāt. II. 91, l. 11; III. 322, l. 22. Morris is of opinion (see p. 29 of the Journal of the Pāli Text Society, 1884) that the Sanskrit word 'akṣuṇṇavedhi' comes from the Pāli word 'akkhaṇavedhi'.

and means 'one who shoots like lightning'. Cp. also 'akkhaṇavedhivālavedhisaddavedhisaravedhinah' Jātaka, V. 129, ll. 17, 26.

26. मर्मवेधित्वम्—Shooting so as to hit the vital parts. Cp. Vyut. 217-21, Divya. 58-100.
27. शब्दवेधित्वम्—Shooting an arrow correctly at any invisible person or beast by the sole clue of the sound produced by them. Cp. the story of Ekalavya in the Mahābhārata (Ādi.), and of Daśaratha (Rāmāyaṇa, II. 65); compare also Vyut. 217-20; 'saddavedhi', Mahāvamśa, 143; Vipākasūtra, p. 100; and Jātaka, V. 129, ll. 17, 26; 'ṣabdavedha', Divya. 100-442, and 'ṣabdavedhigandha,' Mahāvastu, II. 213-5.
28. दृढप्रहारित्वम्—The dealing of firm blows. Cp. Vyut. 217-23, Divya. 58-100.
29. अक्षक्रीडा—Playing with dice. Cp. Vyut. 245-939.
30. काव्यव्याकरणम्—Belles Lettres and Grammar.
31. ग्रन्थरचितम्—Writing of books.
32. रूपम्—Sculpture; creating forms in gold, wood, etc. Cp. I. 3.
33. रूपकर्म—Painting.
34. अधीतम्—Studying.
35. अग्निकर्म—Production of fire; probably, by rubbing two pieces of wood.
36. वीणा—The Vīṇā; i.e., playing on the Vīṇā. Vyut. 218-18.
37. वाद्यनृत्यम्—Playing on musical instruments and dancing. Cp. I. 6.
38. गीतपठितम्—Singing and reading.

39. आख्यातम्—Reciting (stories, etc.). Cp. 'ākhyānam', Vyut. 245-723.
40. हास्यम्—Fun. (Vyut. 245-726, and 220-5). Cp. 'hāsyakāraka', Mahāvastu, III. 113-4.
41. लास्यम्—Dancing to instrumental music. (Vyut. 245-727.)
42. नाट्यम्—Dancing in imitation of others, *e.g.*, peacocks, etc.
43. विडम्बितम्—Imitation (of others' actions, speech, posture, etc.). Cp. 'velambaka', Mahāvastu, III. 1133.
44. माल्यग्रन्थनम्—Stringing of flowers into garlands.
45. संवाहितम्—Massage. Cp. 'sambāhanam', Digha. I. 7 and no. 44, List III.
46. मणिरागः—Colouring of precious stones. Cp. no. 40, List III.
47. वस्त्ररागः—Dyeing of cloth. Cp. 8 in List III.
48. मायाकृतम्—Production of 'māyā' or illusion. Cp. Daṣakumāracarita, I. 11, l. 17. 'maṇimantraushadhādīmāyāprapancacuncutvaṃ'.
49. स्वप्नाध्यायः—Interpreting dreams. Cp. 'supinam', Digha. I. 9; Sutra. 2.2.26.
See also, Berliner Verzeichnis, II. 94 and 269; Purāṇasarvasva, Oxford Catalogue, 866.
50. शकुनिस्तम्—Knowledge of the cries of birds. Cp. I. 87.
51. स्त्रीलक्षणम्—Marks of women. Cp. I. 27.
52. पुरुषलक्षणम्—Marks of men. Cp. I. 28.
53. अश्वलक्षणम्—Marks of horses. Cp. I. 29.

54. हस्तिलक्षणम्—Marks of elephants. Cp. I. 30.
55. गोलक्षणम्—Marks of bulls and cows. See chap. 61 in Brihat Samhitā.
56. अजलक्षणम्—Marks of goats. See chap. 65 in Brihat.
57. मिश्रितलक्षणम्—Obscure. Foucoux conjectures that this is a mistake for 'menṭhalakshaṇam' (marks of rams); see his translation, II. p. 130. Cp. also 'meṇḍalakshaṇam' Digha. I. 9; also 27 in List I.
58. कैटमेश्वरलक्षणम्—Obscure; a kind of script (Monier-Williams). (Vyut. 221-6.)
59. निर्घण्टुः—Lexicon. (Vyut. 221-5.)
60. निगमः—Revealed Scripture.
61. पुराणम्—The Purāṇas. (Vyut. 216-17 and 245-724.)
62. इतिहासः—The Itihāsas. (Vyut. 216-18 and 245-725.)
63. वेदाः—The Vedas.
64. व्याकरणम्—Grammar.
65. निरुक्तम्—The Nirukta; Etymology.
66. शिक्षा—The Śikshā; Phonetics.
67. छन्दः—Metrics. With regard to 63-69, comp. Daśa. I. 11-13, 'shadangasahitavedasamudāyakovidatvam'.
68. यज्ञकल्पः—Rules for conducting sacrifices; the Kalpa-sūtras.
69. ज्योतिः—The Science of the stars. (Vyut. 216-14.)
70. साङ्ख्यम्—The Sāṃkhya philosophy. (Vyut. 216-4.)
71. योगः—The Yoga philosophy. (Vyut. 216-11.)
72. क्रियाकल्पः—Kāvya and Alampkāra. Cp. 56 in List III.
73. वैशेषिकम्—The Vaiśeshika philosophy.

74. वेशिकम्—The Veṣika philosophy; the tenets of this system are now not known. Comp. 'kāvilam vesiyam logāyataṃ saltṭhitantaṃ' etc., p. 391, Nandisūtra; (p. 92), Anuyogādvārasūtra.

With regard to 59 to 74 generally, compare 'riuveda-jajuveda-sāmaveda-ahavvaveda-itihāsa-pancamāṇaṃ nighaṇtuchatṭhāṇaṃ cauṇhaṃ vedāṇaṃ samgovamgāṇaṃ sarahassāṇaṃ . . . satṭhitantavisārae saṃkhāṇe sikkhākappe vāgarāṇe chande nirutte jotisāṃ ayaṇe . . ', p. 148, Bhagavatī-sūtra, and Aupapātikam, Berliner Verzeichnis II. 539.

75. अर्थविद्या—Science of wealth; *i.e.*, Political Economy and Politics. Compare Daśa I. 11. 'kautilyakaṃandakiyādīnītipaṭalakaṇṣaḷam'.
76. बार्हस्पत्यम्—The science enunciated by Bṛihaspati; *i.e.* probably here, the Cārvāka or Lokāyata philosophy, which, it is said, was first given out by Bṛihaspati. See Sarvadarśanasamgraha on the Cārvāka philosophy; see also Hemacandra's Abhidhānacintāmaṇi, 862.
77. आश्चर्यम्—Wonder; *i.e.*, probably, wonderworking. (Vyut. 245-759.)
78. आसुरम्—Demoniacal magic.
79. मृगपक्षिस्तम्—Cries of birds and beasts; Cp. Lalita. 144 (Beal), and 'Mṛigacakram', S.B.E. xlv.366; also, no. 50 in this list, no. 87 in List I, and 'śakunavidyā', Vyut. 221-12.
80. हेतुविद्या—The Nyāya philosophy.
81. जतुयन्त्रम्—Machines of lac, probably death-dealing. Perhaps, this is a mistake for

‘satṭhitantra’ (—a system of philosophy—).
See Bhagavatī, p. 148, Indische Studien, 17, 9,
and p. 362 in Max Müller’s ‘India. What it
can teach us?’.

82. मधुच्छिद्रकृतम्—Wax-modelling. Cp. 24 in List I.
(Vyut. 245-709.)
83. सूचीकर्मन्—Needle work. Cp. 25 in List III.
84. विदलकर्मन्—Work of separating, sawing, etc.
85. पत्रच्छेदम्—Cutting or trimming of leaves so as to
represent various figures. Cp. 82 in List I.
86. गन्धयुक्तिः—Mixing different substances to make per-
fumes. Comp. 18 in List III, 23 in List I.
Vyut. 245-696 and ‘gandhasannidhi’ Dīgha. I. 6.

LIST III. (Vātsyāyana).

This list is given in Vātsyāyana’s Kāma-sūtra,
pp. 32, 33; and with slight variations in
the commentaries of Śrīdhara, Jīvagoswāmin,
Vallabhācārya and Śukadeva on Śrīmad Bhā-
gavata, X. 45-36. Śrīdhara there says that he
has taken the list from the Śaivatantra.
This list of Śrīdhara is, again, given in the
Śabdakalpadruma and Tārānātha’s Lexicon
—Vācaspatyabṛihadabhidhānaṃ—under ‘kalā’.
Vātsyāyana’s list is given in Aufrecht’s Cata-
logue of the Oxford Manuscripts. Further,
this same list is given in Molesworth’s
Marāthi-English Dictionary under ‘causasṭa-
kalā’ (p. 297).

The interpretations given here follow those given
by Yaśodhara in his commentary Jayamangalā
on the Kāmasūtra.

1. गीतम्—Singing. Cp. I. 5, II. 38.
2. वाद्यम्—Playing on musical instruments. Cp. I. 6, II. 37.
3. नृत्यम्—Dancing. Cp. I. 4, II. 37.
4. आलेख्यम्—Painting. Cp. I. 3, II. 33.
5. विशेषकच्छेद्यम्—Trimming of leaves etc., to represent various figures for the purpose of wearing on the forehead. Cp. I. 82, II. 85.
6. तण्डुलकुसुमबलिविकाराः—Arrangement of ricegrains and flowers (of different colours) in different ways for the purposes of worship. The extract in Aufrecht's list from the scholium explains this word as 'making of ear-ornaments'!
7. पुष्पास्तरणम्—Covering or decorating a house or room with flowers.
8. दशनवसनाङ्गरागः—Applying colours to the teeth, body and clothes. Cp. II. 47.
9. मणिभूमिकार्म—Construction of floors with gems ; mosaic work. The scholiast explains this word as 'the making of dolls'.
10. शयनरचनम्—Making of beds. Cp. I. 18.
11. उदकवाद्यम्—Playing on water so as to produce the sound of a 'muraja' (drum), etc.
12. उदकघातः—Striking others (in jalakrīdā) with handfuls of water. Compare 'udakakīlā', Dhammapada 307, 'udake hāsaḍhamme pacittiyaṃ', Vinaya, IV. 112, and 'udakaharshaṇaṃ', Vyut. 261-68. Jīvagosaṃvāmin explains this term by 'jalastambha' (suspending the properties of water). Cp. VII. 28.

13. चित्राश्वयोगः—Causing others, by means of drugs, medicines, invocations, etc., to become weak, prematurely greyhaired, mad, etc. See pp. 369, 370 of the Kāmasūtra.
14. माल्यग्रथनविकल्पाः—Stringing of flowers into garlands in various ways. Cp. II. 44.
15. शेखरकापीडयोजनम्—Wearing of 'śekharakas' and 'āpīdakas'—two ornaments worn on the head—in their proper places.
16. नेपथ्यप्रयोगः—Dressing one's self or others. Cp. I. 25, 26.
17. कर्णपत्रभङ्गः—Making of ear-ornaments (out of ivory, etc.).
18. गन्धयुक्तिः—Preparation of perfumes. Comp. I. 23, II. 86.
19. भूषणयोजनम्—Making of ornaments. The Commentator remarks that the term literally means 'the wearing of ornaments in their proper places', a meaning which is included in no. 16 above. He therefore explains it as 'the making of ornaments'.
20. ऐन्द्रजालयोगः—Processes of Indrajāla *i.e.*, producing illusions—such as Gods, serpents, armies, etc. See Daśa. I. 32. Cp. II. 48, 77, 78.
21. कौतुमाराश्वयोगः—Prescriptions of Kucumāra (for becoming stronger, more virile, etc.). See Kāmasūtra, pp. 365-370.
22. हस्तलाघवम्—Readiness of hand, *i.e.*, quickness in doing all things, according to Yaśodhara and Böhrlingk. The scholiast, however, interprets this as 'stealing things, even when persons are present'.

23. विचित्रशाकयूषभक्ष्यविकारक्रिया—Preparation of various vegetables, soups and condiments.
24. पानकरसरागासवयोजनम्—Preparation of different kinds of drinks—‘pānakas’, ‘rasas’, etc.
25. सूचीवानकर्माणि—Sewing, weaving, knitting, plaiting. Cp. ‘sūcīkarma’ II. 83 and Vyut. 245-698. The Petersburg Dictionary has the reading ‘sūcīvāpakarmāṇi’.
26. सूत्रक्रीडा—Playing with strings, *i.e.*, holding a string in the fingers and making it assume the outline of a house, temple, etc. Cp. I. 77. Jivagosvāmin interprets this term as ‘making figures move by pulling threads’.
27. वीणाडमरुकवाद्यानि—Playing on the Viṇā, the Damaru (a kind of drum) and other musical instruments. Cp. II. 36, 37.
28. प्रहेलिका—Riddles. (Vyut. 245-945); *e.g.*, apado dūragāmī ca sāksharo na ca paṇḍitaḥ । amukhas sphuṭavaktā ca yo jānāti sa paṇḍitaḥ ॥ The answer is ‘a letter’. For further examples see Subhāshitaratnabhāṇḍāgāraṃ, pp. 191-193 and the Kuntāpa hymns of the R̥g and Atharva Vedas. Cp. I. 19.
29. प्रतिमाला*—A game; one person recites a ‘śloka’, another follows with one beginning with the last letter of that ‘śloka’ and so on (antyāksharī.) Cp. 63 in Appendix E.
30. दुर्वाचकयोगाः—Another game; each participator recites ‘ślokas’ bristling with hard syllables.

* Cp. शेषमक्षरमादाय प्रतिश्लोकं क्रमेण यत् । अन्योन्यं पठ्यते श्लोकः प्रतिमालेति सा मता ॥ Hārāvali, 17.



31. पुस्तकवाचनम्—Reading of books.
32. नाटकाख्यायिकादर्शनम्—Knowledge of dramas and stories.
33. काव्यसमस्यापूरणम्—Composition of poetry; the last quarter of a 'śloka' being given, the composition of the first three, the whole giving a sensible meaning. For examples, see Kāvyaḍarṣa, Subhāshitaratnabhāṇḍāgāraṃ, pp. 188-191 and Ballāla's Bhojacarita.
34. पट्टिकावेत्रवानविकल्पाः—Making of different things (*e.g.*, cots and seats) from canes and reed.
35. तक्षकर्मणि—Cutting *i.e.*, working in gold, steel, wood, etc., of 'apadravyas'. (For the explanation of this term see Kāmasūtra, p. 368.)
36. तक्षणम्—Carpentry.
37. वास्तुविद्या—The science of houses; how houses should be built, on what sites, with what materials, etc. Cp. 'vatthuvijjā' Dīgha. I. 9, and chap. 53 in Bṛihat.
38. रत्नपरीक्षा—Testing of precious stones and coins. Cp. I. 38.
39. धातुवादः—The combination, purification, precipitation, etc., of minerals. Cp. I. 69.
40. मणिरागाकरज्ञानम्—Knowledge of the processes of dyeing crystals and precious stones, and of the location and working of mines.
41. वृक्षयुर्वेदयोगाः—Medicine for plants; *i.e.*, knowledge of the processes for making trees and plants healthy and sound, for making them abnormally small or big, etc. See chap. 55 in Bṛihat.; Kuṭṭanimataṃ, Verses 123-124.

42. मेषकुट्टलावकयुद्धविधिः—Making rams, cocks and 'lāvakas,' fight. Cp. Dīgha. I. 6, Kāmasūtra, p. 313.
43. शुक्रसारिकाप्रलापनम्—Teaching male and female parrots to speak words. Cp. Kāmasūtra, p. 313.
44. उत्सादने संवाहने केशमर्दने च कौशलम्—Proficiency in massaging the head, and the body with hands and feet. Cp. II. 45.
45. अक्षरमुष्टिकाकथनम्—Finding out the meaning of groups of letters. *e.g.*, 'mevṛimikasiṃkatuvṛidhamakummi' stand for the names of the twelve months 'Mesha', 'Vṛishabha' etc.
46. म्लेच्छितविकल्पाः—Varieties of cipher languages; *i.e.*, languages which are unintelligible to all except the initiated.
47. देशभाषाविज्ञानम्—Knowledge of the languages of various countries. Cp. Daṣa. I. 11, l. 13, 'nikhīladesīyabhāṣhāpāṇḍityaṃ'.
48. पुष्पशकटिका—Cart of flowers; *i.e.*, making carts, horses, elephants, palanquins, etc., of flowers (to send love-letters in). According to Trikaṇḍaśeṣha (II. 401) and Hārāvalī (222), 'puṣhpasaṅkaṭī' means an 'upaśruti'.
49. निमित्तज्ञानम्—Knowledge of good and bad omens. See Bṛihat. chap. 86-91.
50. यन्त्रमातृका—Construction of machines for locomotion, water and war purposes, etc. See Kathāsarit-sāgara, VI. 3, 17-50.
51. धारणमातृका—Science of remembering things. Holding cloths and other things in the hands, according to Vallabhācārya.

52. सम्पाद्यम्—A game; one person recites a 'śloka', which is unknown to another, who, however, has to repeat it after him. The Oxford Catalogue (217^a-16) reads 'samvācyam' (conversation).
53. मानसी—Another game; one person writes a 'śloka' with 'anuswāra' and 'visarga' as they are but with crosses in place of the other letters. The other player has to write the correct letters in place of the crosses.
54. काव्यक्रिया—Composing poems. Cp. II. 31.
55. अभिधानकोशछन्दोविज्ञानम्—Knowledge of Lexicons and Metrics.
56. क्रियाकल्पः—'Kāvya' and 'Alaṅkāra'. Cp. II. 72.
57. छलितकयोगाः—Processes of deception, *i.e.*, disguising the person and voice so as not to be recognised or so as to pass for another.
58. वस्त्रगोपनानि—Hiding of dresses; deception as to dress; *i.e.*, wearing a short cloth so that it may not appear short, etc. Cp. 'gopanam', Vyut. 261-71; and 'pācittiya', Vinaya, IV. 122, 60.
59. द्यूतविशेषाः—Varieties of gambling. Cp. I. 85, 86; Daṣa. I. 11, l. 18, 'durodarādikapatakalāpraundhatvaṃ.'
60. आकर्षक्रीडा—A particular kind of gambling with dice.
61. बालक्रीडनकानि—Games for children; *i.e.*, games with balls, dolls, etc.
62. वैजयिकीनां विद्यानां ज्ञानम्—Knowledge of the sciences and arts which educate a person.
63. वैजयिकीनां विद्यानां ज्ञानम्—Knowledge of the sciences which confer victory.

64. व्यायामिकीनां विद्यानां ज्ञानम्—Knowledge of the sciences connected with physical exercise; *e.g.*, swimming, wrestling, etc.

The Variants are given in pp. 32, 33 of the Kāmasūtra in the form of foot notes. The list of Śrīdhara in his commentary on Śrīmad Bhāgavata, X. 45-36 is substantially the same, but there are slight variations and additions. Thus, between 3 and 4, he reads 'nāṭyaṃ' (dancing in imitation of others). 6 he gives as 'taṇḍulakusumabaliprakārāḥ', 13 he gives as 'citrayogāḥ', 18 as 'sugandhayuktiḥ', 21 as 'kautumārayogāḥ', 23 as 'citraśākāpūpabhakshyavikārakriyā', 25 as 'sūcīkarma', 26 is left out. He reads no. 34 as 'paṭṭikāvetra-bāṇavikalpāḥ', and 35 as 'tarkakarmāṇi'; he decomposes no. 40 into 2 terms—'maṇirāga-jñānaṃ', and 'ākara-jñānaṃ'; 44 he decomposes into two—'utsadānaṃ' and 'keśamārjanakausalāṃ'. He joins 48 and 49 and reads them as one; 50 and 51 he reads as one, 52 he reads as 'saṃvācyaṃ' 53 and 54 he reads as one, he decomposes 55 into two, and he reads no. 64 as 'vairālikīnāṃ vidyānaṃ jñānaṃ'.

Molesworth has the same list as Śrīdhara, but in a haphazard order of his own and with some additions. He has the following items which are not found in Śrīdhara's list—'vīṇādamūrakavādyāni', 'prahelikākūṭa-vānīvijñānaṃ', which he translates as 'solution of riddles, enigmas, covert speech, and verbal

puzzles', 'pushpavaṭikānimittajñānaṃ' (floriculture), 'yantramatrīkādhāraṇamatrīkāsaṃvācyam' (art of forming mystical diagrams and of addressing spells, binding amulets, etc.), 'ākārajnāna' (judgment or connoisseurship of mines and quarries), 'utsāhanam' (inciting, animating, stimulating), 'krauncasāraṇayogaḥ' (art of assuming disguises, characters, and deceptive forms).

(The translations above given are those of Molesworth.)

The other items of his list are the same as in Śrīdhara's list, but his translations are different.

अलेख्यम्—Writing and drawing.

विशेषकच्छेयम्—Tattooing or the making of spots, lines or figures on the person by puncturing and staining.

तण्डुलकुसुमबलिप्रकार—Investigating and arraying (an idol, etc.) with rice and flowers.

नेपथ्ययोग—Scenic representation, stage-playing.

उदकवाद्य—Playing on musical glasses with water.

उदकघात—Arresting and accumulating water in aqueduct-cisterns or reservoirs.

चित्रयोग—Picturemaking, limning, decorating, etc.

सूत्रक्रीडा—Making of parrots, flowers, tufts etc., out of yarn or thread.

प्रतिमाल—Casting or moulding of images.

दुर्वाचकयोग—Device or strategy for outwitting and overcoming the wicked.

नाटकाख्यायिकादर्शनम्—Histrionic or scenic representation.

पट्टिकावेत्रबाणविकल्प—Practice with sword, singlestick, quarterstaff, bow and arrow, etc., fencing, archery.

वृक्षायुर्वेदयोग—Art of determining the age of trees and plants.

अक्षरमुष्टिकाकथन—Art of divining the contents of a closed hand.

क्रियाविकल्प—Knowledge of processes and methods in general.

आकर्षकक्रीडा—Art of drawing into one's possession (as by Mantras) of the property of others.

म्लेच्छितकविकल्प—Discrimination of foreign languages (from Sanskrit).

वैनयिकीनां वैजयिकीनां वैतालिकीनां च विद्यानां ज्ञानम्—Knowledge of the several departments of conjuration, charming and devilcraft.

The above list comprises all the words which Molesworth has translated differently. Of these translations, it is necessary to remark that most of them are incorrect and show that the translator had a very superficial knowledge of Sanskrit (see his translations of 'vṛikshāyurvedayoga', 'paṭṭikāvetrabāṇavikalpa,' etc.) Some of the translations, though not incorrect, are not so appropriate here as the meanings given by the commentator.

LIST IV. (Kādambarī).

This list is given in p. 75 of Bāṇa's Kādambarī.

1. पदम्—Grammar.—Cp. II. 64.
2. वाक्यम्—Logic.—Cp. II. 73, 80.

3. प्रमाणम्—The system of Pūrva-mīmāṃsā, propounded by Jaimini.
4. धर्मशास्त्रम्—Law, *i.e.*, treatises on law such as those of Manu, etc.
5. राजनीतयः—Treatises on politics like those by Kāmandaka, Cāṇakya, etc. ; Politics. Cp. II. 75.
6. व्यायामविद्याः—Sciences concerned with physical exercise, *e.g.*, swimming, wrestling, etc. Cp. II. 15, III. 64.
7. चापचक्रचर्मकृपाणशक्तितोमरपरशुगदाप्रभृतयःआयुधविशेषाः—Bow, discus, shield, sword, 'śakti', 'tomara' (Vyut. 217-12), axe, mace and other weapons.
8. रथचर्याः—Driving of chariots. Cp. II. 9.
9. गजपृष्ठानि—Backs of elephants, *i.e.*, elephant-riding. Cp. II. 8.
10. तुरङ्गमाः—Horses ; *i.e.*, riding on horses. Cp. II. 11.
11. वीणामुरजकांस्यतालददुरपुटप्रभृतीनि वाद्यानि—Musical instruments like the Vīṇā (Vyut. 218-18), the flute, the 'Muraja' (Vyut. 218-6), 'Kāṃsyatāla' 'Dardurapuṭa', etc. Cp. III. 27, II. 36, 37, and I. 6.
12. भरतादिप्रणीतानि नृत्तशास्त्राणि—Books on dancing, written by Bharata, etc. Cp. I. 4, II. 37, 42, III. 3.
13. नारदीयपृथृतयो गन्धर्ववाद्यविशेषाः—Science of music, as taught by Nārada and others.
14. हस्तिशिक्षा—Training of elephants. Cp. I. 64.
15. तुरगवयोज्ञानम्—Judging of the age of horses.
16. पुरुषलक्षणम्—Marks of men. Cp. I. 28, II. 52.
17. चित्रकर्म—Probably, composition of poetry in so-called 'citrās'. (See Kāvya-prakāṣa, pp. 641-646,

Kāvyaḷaṃkāra of Rudraṭa and Sāhityadarpaṇa).
The commentator however explains this term
by 'painting'. Cp. 'cittakamme', Praṣṇa.
p. 519.

18. पत्रच्छेद्यम्—Cutting leaves into various shapes.
Cp. I. 82, II. 85, III. 5.
19. पुस्तकव्यापारः—Handling of books; *i.e.*, reading the
'śāstras'.
20. लेख्यकर्म—Painting. Cp. III. 4. The commentator
explains this as 'writing'.
21. सर्वाः द्यूतकलाः—All kinds of gambling. Cp. III. 59,
I. 10, 85, 86.
22. गन्धर्वशास्त्राणि—Sciences of Gandharvas; *i.e.*, singing,
etc.
23. शकुनिस्तज्ञानम्—Knowledge of the cries of birds.
Cp. I. 87, II. 50, 79, Dīgha. I. 9.
24. ग्रहगणितम्—Calculation of the paths, etc., of planets.
Cp. I. 42, 43, 44, II. 69.
25. रत्नपरीक्षाः—Testing of precious stones. Cp. I. 38,
III. 38.
26. दारुकर्म—Working in wood. Cp. III. 36. Cp. 'kaṭṭhe',
Praṣṇa. p. 519.
27. दन्तव्यापारः—Working in ivory. Cp. 'dantakamme',
Praṣṇa. p. 519.
28. वास्तुविद्याः—Science of houses. Cp. III. 37.
29. आयुर्वेदः—The science of Medicine.
30. यन्त्रप्रयोगः—Use of Machines. Cp. III. 50.
31. विषापहरणम्—Removing the effects of poison. Cp. I. 52.
32. सुरङ्गोपभेदः—Tunnelling.

33. तरणम्—Swimming. Cp. II. 6.
34. लङ्घनम्—Leaping. Cp. II. 1.
35. छुत्तयः—Jumping. Cp. II. 2.
36. आरोहणम्—Ascending (of trees, etc.) Cp. VII. 50.
37. रतितन्त्राणि—Books on Erotics.
38. इन्द्रजालः—Indrajāla; production of illusions. Cp. II. 77, 78, 48, III. 20.
39. कथाः—Stories. Cp. III. 32.
40. नाटकानि—Dramas. Cp. III. 32.
41. आख्यायिकाः—Stories (as, for instance, Harshacarita.) Cp. III. 32, and 'ākhyāna', Vyut. 245-723.
42. काव्यानि—Poems. Cp. II. 30, 72, III. 56.
43. महाभारतपुराणेतिहासरामायणानि—The Mahābhārata, the Purāṇas and Itihāsas, and the Rāmāyaṇa. Cp. II. 61, 62, Vyut. 245-724, 725.
44. सर्वलिपयः—All varieties of scripts. Cp. II. 3, I. 1.
45. सर्वदेशभाषाः—The languages of all countries. Cp. III. 47.
46. सर्वसञ्ज्ञाः—All names.
47. सर्वशिल्पानि—All technical arts.
48. छन्दांसि—The metres (*i.e.*, the science of Metrics) or perhaps, the Vedas. Cp. II. 60, 63 and 67.

LIST V. (Pancāla's list).

This list, as such, is not found in Vātsyāyana's Kāmasūtra; but by the Sūtra and the commentary on p. 95, we can construct the list for ourselves. The commentator there says that the Kāmasūtra has 10 divisions and 64 subdivisions. The 10 divisions are—Ālinganam, Cumbanam, Dantakarma, Nakhakshatam,

Sitkṛitaṃ, Pāṇighātaḥ, Saṃveṣanaṃ, Upasṛitaṃ, Auparishtaṃ and Narāyitaṃ. Vātsyāyana, too, says on p. 41 'There is another list of 64 given by Pancāla. We will mention them in their proper places in the Sāmprayogika Adhikaraṇa'.

Thus we can form Pancāla's list by counting the subdivisions given in Vātsyāyana's book under the above 10 headings (Kāmasūtra, pp. 96-176).

Thus Pancāla's list is as follows :—

- | | |
|----------------|------------------|
| 1. स्मृष्टकम् | 5. लतावेष्टितकम् |
| 2. विद्धकम् | 6. वृषाधिरूढकम् |
| 3. उद्धृष्टकम् | 7. तिलतण्डुलकम् |
| 4. पीडितकम् | 8. क्षीरनीरकम् |

- | | |
|------------------|---|
| 9. समम् | { These are given as the
opinion of 'apare', which
word probably refers to the
Bābhraṇīyas (or followers
of Pancāla Bābhraṇya). |
| 10. तिर्यक् | |
| 11. उद्भ्रान्तम् | |
| 12. अवपीडितकम् | |

- | | |
|----------------|-------------------|
| 13. गूढकम् | 17. प्रवासमणिः |
| 14. उच्छूनकम् | 18. मणिमाला |
| 15. बिन्दुः | 19. खण्डाभ्रकम् |
| 16. बिन्दुमाला | 20. वराहचर्वितकम् |

- | | |
|-----------------|------------------|
| 21. आच्छुरितकम् | 25. व्याघ्रनखम् |
| 22. अर्धचन्द्रः | 26. मयूरपदकम् |
| 23. मण्डलम् | 27. शशशुतकम् |
| 24. रेखा | 28. उत्पलपत्रकम् |

- | | |
|--------------|-----------------------|
| 29. हिङ्गारः | 33. सूक्तम् |
| 30. स्तनितम् | 34. दूक्तम् |
| 31. कूजितम् | 35. फूक्तम् |
| 32. रुदितम् | 36. अम्बार्थाः शब्दाः |
-

- | | |
|------------------|----------------|
| 37. उत्फुल्लकम् | 41. पीडितकम् |
| 38. विजृम्भितकम् | 42. वेष्टितकम् |
| 39. इन्द्राणिकम् | 43. वाडवकम् |
| 40. सम्पुटकम् | |
-

- | | |
|----------------|-----------------|
| 44. उपसृप्तकम् | 49. निर्घातः |
| 45. मन्थनम् | 50. वराहघातः |
| 46. हुलः | 51. वृषाघातः |
| 47. अवमर्दनम् | 52. चटकविलसितम् |
| 48. पीडितकम् | 53. सम्पुटः |
-

54. सन्दंशः
 55. भ्रमरकः
 56. प्रह्वेलितकम्
-

- | | |
|---------------------|------------------|
| 57. निमित्तम् | 61. चुम्बितकम् |
| 58. पार्श्वतोदष्टम् | 62. परिमृष्टकम् |
| 59. बाहिस्सन्दंशः | 63. आम्रचूषितकम् |
| 60. अन्तस्सन्दंशः | 64. सङ्गरः |
-

Of these, 1-8, 9-12, 13-20, 21-28, 29-36, 37-43, 44-53, 54-56 and 57-64, are respectively the sub-divisions of 'ālinganam', 'cumbanam', 'dantakarman', 'nakhakshatam', 'sitkṛitam', 'samveṣanam', 'upasṛiptakam', 'narāyitam', and

‘auparishṭakam’. According to Vātsyāyana, however, we must add to the above list the following items:—

65. ऊरूपगूहनम्	85. शौनम्
66. जघनोपगूहनम्	86. ऐणेयम्
67. स्तनालिङ्गनम्	87. छागलम्
68. ललाटिका	88. गर्दभाक्रान्तम्
69. समम्	89. मार्जारललितकम्
70. पीडितम्	90. व्याघ्रावस्कन्दितम्
71. अञ्चितम्	91. गजोपमर्दितम्
72. मृदु	92. वराहघृष्टकम्
73. भुग्नकम्	93. तुरगाधिरूढकम्
74. जृम्भितकम्	94. सङ्घाटकम्
75. उत्पीडितकम्	95. गौयूथिकम्
76. अर्धपीडितकम्	96. वारिक्रीडितकम्
77. वेणुदारितकम्	97. अपहस्तकम्
78. शूलाचितकम्	98. प्रसृतकम्
79. कर्कटकम्	99. मुष्टिः
80. पीडितकम्	100. समतलकम्
81. परावृत्तकम्	101. क्रीला
82. स्थितम्	102. कर्तरी
83. अवलम्बितकम्	103. विद्धा
84. धेनुकम्	104. सन्दंशिका

Of these 65-68 are additional sub-divisions of ‘ālinganam’, 69-72 of ‘cumbanam’, 72-81 of ‘saṃveṣanam’, 82-96 of ‘upasṛitam’ and 97-104 of ‘prahaṇanam’.

All these terms are intimately connected with Erotics, and are, therefore, not translated here. They are explained in pages 97-176 of Vātsyāyana’s Kāmasūtra.

LIST VI. (Yaşodhara).

This list is given by Yaşodhara in his commentary—Jayamangalā—on the Kāmasūtra (p. 31). Yaşodhara mentions and gives extracts from Caraka (p. 81), Suşruta (p. 81), Gautama (p. 142), Vasishṭha (p. 171), and Kāvya-darśa (pp. 37, 38). In p. 147, he quotes a verse from Bhāravis' Kirātārjunīya and on p. 68, makes a reference to Bāṇa's Kādambarī. These facts seem to show that he lived in the 8th century A.D, because there are no extracts from later writers such as Rudraṭa or Māgha. This list, he says, is given in another 'śāstra'.

1. गीतम्—Singing. Cp. I. 5, II. 38, III. 1, IV. 13.
2. नृत्यम्—Dancing. Cp. I. 4, II. 37, III. 3, IV. 12.
3. वाद्यम्—Playing on musical instruments. Cp. I. 6, II. 37, III. 2, IV. 12.
4. लिपिज्ञानम्—Knowledge of writing, and engraving. Cp. I. 1, II. 3, IV. 44.
5. वचनं चोदारम्—Courtly speech. Cp. 'vācā porī', Burnouf, Lotus, 464, and I. 12.
6. चित्रविधिः—Composing poetry which can be formed in various figures (Cp. IV. 17) or painting.
7. पुस्तकर्म—Painting on cloth. Cp. 'potthe,' Praśnavyākaraṇa and its commentary, p. 519. Cp. also I. 3, II. 33, III. 4, IV. 20, Mahāvastu, III. 113, 6, and Halāyudha, II. 436.
8. पत्रच्छेदम्—Trimming leaves into different shapes. Cp. I. 82, II. 85, III. 5, IV. 18.
9. माल्यविधिः—Art of making garlands, bouquets, etc. Cp. II. 44, III. 14.

10. आस्वाद्यविधानम्—Art of making savoury dishes ; *i.e.*, art of cooking. Cp. III. 23, 24.
11. रत्नपरीक्षा—Art of testing precious stones. Cp. I. 38, III. 38, IV. 25.
12. सीव्यम्—Sewing. Cp. II. 83, III. 25 and Vyut. 245-698.
13. रत्नपरिज्ञानम्—Knowledge of the stage, *i.e.*, art of disposing views, producing representations of natural scenery, acting, etc.
14. उपकरणक्रिया—Construction of machines, apparatus, engines, etc. (Monier-Williams.) Cp. III. 50, IV. 30.
15. मानविधिः—Measuring. Another reading is यानविधिः which means 'going, travelling.' Cp. II. 17, 18.
16. आजीवज्ञानम्—Knowledge of the means of livelihood. Cp. Daṣa. I. 42.
17. तिर्यग्योनिचिकित्सितम्—Medical treatment of animals, Veterinary Medicine.
18. मायाकृतं पाषण्डसमयज्ञानम्—Knowledge of the tenets of heretical systems, which are produced by illusion.
19. क्रीडाकौशलम्—Dexterity in plays, games, etc. Cp. III. 61, Daṣa. I. 42.
20. लोकज्ञानम्—Knowledge of the world.
21. वैचक्षण्यम्—Cleverness, skill.
22. संवाहनम्—Massage. Cp. II. 45, III. 44.
23. शरीरसंस्कारः—Refinement of the body, *i.e.*, dressing, putting on of jewels, use of ointments, etc. Cp. I. 26, III. 16.
24. विशेषकौशलम्—Special proficiency ; *i.e.*, proficiency in special arts.

25. आयुःप्राप्तिः
26. अक्षविधानम्
27. रूपसङ्ख्या
28. क्रियामार्गः
29. बीजग्रहणम्
30. नयज्ञानम्
31. करणादानम्
32. चित्राचित्रविधिः
33. गूढराशिः
34. तुल्याभिहारः
35. क्षिप्रग्रहणम्
36. अनुप्रप्तिलेखास्मृतिः
37. अग्निक्रमः
38. छलव्यामोहनम्
39. ग्रहदानम्

Varieties of gambling
(with dice, cowries, etc.).
Cp. I. 86, III. 59 and
IV. 21.

Terms 40-44 refer to gambling with live creatures.

40. उपस्थानविधिः—How to make cocks, etc., stand.
41. युद्धम्—Making cocks, etc., fight.
42. स्तम्—The cry of cocks, etc.
43. गतम्—Making horses, etc., race.
44. नृत्तम्—Making cocks, etc., dance.

Terms 45-64 refer to Erotics.

45. पुरुषस्य भावग्रहणम्—Art of finding out the state of the affection of a man.
46. स्वरागप्रकाशनम्—Making known one's own love for another.
47. प्रत्यङ्गदानम्
48. नखदन्तयोर्विचारौ Cp. VI. 13-28.
49. नीवीसंसनम्

50. गुह्यस्य संदर्शनानुलोम्यम्
51. परमार्थकौशलम्
52. हर्षणम्
53. समानार्थताकृतार्थता
54. अनुप्रेत्साहनम्
55. मृदुक्रोधप्रवर्तनम्—Inducing a slight anger.
56. सम्यक् क्रोधनिवर्तनम्—Averting anger completely.
57. क्रुद्धप्रसादनम्—Pacifying an angry person and getting his forgiveness.
58. सुप्तापरित्यागः
59. चरमस्वापविधिः
60. गुह्यगूहनम्
61. साश्रुपातं रमणाय शापनम्—Making vows with tears (to a husband or lover).
62. स्वशपथक्रिया—Making 'ṣapatha' on one's self.
63. प्रस्थितानुगमनम्—Following a departing lover or husband.
64. पुनःपुनर्निरीक्षणम्—Seeing (a lover or husband) again and again. Terms 45-64 treat of Erotics, and therefore some are not here translated.

LIST VII. (Rāmacandra).

This list is given in Rāmacandra's commentary on the first verse in Lakshmaṇakavi's continuation of the Campūrāmāyaṇa of Vidarbharāja. This Rāmacandra is a commentator like Mallinātha and has written commentaries on several books including Bhartrihari's 'Three Ṣatakas', the Campūrāmāyaṇa and the Campūbhārata. The last of the above books, *viz.*, the

Campūbhārata is composed by Anantakavi, who is traditionally reported to have belonged to the family of the famous Appayyadīkshita who lived in the 17th century A. D. Rāmacandra, in his commentaries, gives extracts from Candrāloka (12th century), Kāvyaaphrakāṣa (12th century) and Sāhityadarpaṇa (15th century), so that he is assuredly later than Viṣwanātha, the author of Sāhityadarpaṇa, and probably, later than Appayyadīkshita also.

The list is given in the form of 9 aṁuṣṭup verses. (See Appendix A.)

1. इतिहासागमाद्याः—Itihāsas, Vedas and others. Cp. II. 62, 63, IV. 43, 48.
2. काव्यालङ्कारनाटकम्—Poems, dramas, and ‘alaṅkāras’ or figures of speech. Cp. II. 30, 72, III. 56, IV. 40, 42.
3. गायकत्वम्—Singing. Cp. I. 5, II. 38, III. 1, IV. 13 and 22 and VI. 1.
4. कवित्वम्—Composition of poetry. Cp. II. 31, III. 54.
5. कामशास्त्रम्—The science of Erotics. Cp. IV. 37; Daṣa. I. 41. ‘adhyāpanaṁ anangavidyānāṁ sāṅgānāṁ’.
6. दुरोदरम्—Gambling. Cp. I. 10, 85, 86, III. 59, IV. 21, and VI. 25-45.
7. देशभाषाः—Languages of countries. Cp. III. 47, IV. 45.
8. लिपिज्ञानम्—Knowledge of different scripts. Cp. I. 1, IV. 44, VI. 4.
9. लिपिकर्म—Enamelling. (Cp. Praṣna. p. 519, ‘leppakamme’), writing, engraving.

10. वाचकम्—Reading. Cp. III. 31.
11. सर्वाणि अपदानानि—All ancient deeds, *i.e.*, ancient chronicles.
12. स्वरशास्त्रम्—Science of 'svara' or nasal breath (Śabdakalpadruma); *i.e.*, the science which describes the different kinds of nasal breathing and their occult effects. See Śabdakalpadruma under 'svara', and also Śivasvarodaya; also, the Berliner Verzeichnis, II. 273.
13. शाकुनम्—Omens and portents. Cp. III. 49. See Brihat. chap. 86-96.
14. सामुद्रिकम्—The science of finding out a person's fortune, etc., by the lines on his hands, feet and body; chiromancy. Cp. 'angavidyā', Jāt. III. 122, 23; 158-18, etc.; 65th chap. Garuḍa Purāṇa, I.
15. रत्नशास्त्रम्—The science of precious stones; *i.e.*, a knowledge of testing precious stones, etc. Cp. I. 38, III. 38, IV. 25, VI. 11. See chapters, 68-80 of Garuḍa Purāṇa, I.
16. रथगतिकौशलम्—Proficiency in driving chariots. Cp. II. 9, IV. 8.
17. अश्वगतिकौशलम्—Proficiency in guiding horses. Cp. I. 63.
18. मल्लशास्त्रम्—The science of wrestling. Cp. 'sālabha' in II. 3.
19. सूदकर्म—The art of cooking. Cp. III. 23, 24, VI. 10.
20. भूरुहाणां दोहदम्—The art of grafting trees, making trees produce all sorts of abnormal fruits, etc. Cp. III. 41.

21. गन्धवादः—Combination, reduction to 'bhasma', purification, etc., of sulphur.
22. धातुवादः—Processes of combination, reduction to 'bhasma', decomposition, precipitation, etc., of minerals. Cp. I. 69 III. 39.
23. खन्यावादः—Location and acquirement of buried treasure. Cp. the story of the yaksha in Kathā. VI. 8, 73-74, and Indrajāla. pp. 360-364.
24. रसवादः—Combination, etc., of mercury.
25. जालवादः—Obscure.
26. अग्निसंस्तम्भः—Suspension of the properties or powers of fire; an occult art by means of which one could walk through fire, hold fire in one's hands, etc., uninjured.
27. खड्गस्तम्भः—An occult art, by means of which a man is uninjured by swords; suspension of the power to injure of swords.
28. जलस्तम्भः—Suspension of the powers or properties of water; another occult art by means of which one could walk in water for days, etc. Cp. Indrajāla. p. 305.
29. वाचस्तम्भः—An art by means of which one can suspend another's speech; *i.e.*, make another speechless.
30. वयस्तम्भः—An art by means of which age *i.e.*, the process of becoming old and decaying, is suspended. Regarding 26-30, cp. Indrajāla. pp. 39-43, 'thambhaṇiṃ' Sūtra. 2.2.27.

31. वश्यम्—An art by means of which one person can bring another completely under his influence. Cp. *Indrajāla*. pp. 274-295.
32. आकर्षणम्—An art by means of which one person compels another to come to him. Cp. 'āyamaṇim', *Sūtra*. 2.2.27, *Indrajāla*. pp. 295-297.
33. विद्वेषणम्—An art by means of which one person is made to hate another. Cp. *Indrajāla*. pp. 323-325.
34. उच्चाटनम्—Driving away; *i.e.*, driving away a person from any locality such as a house or village; driving away of 'bhūtas', 'piśācas', 'grahas', etc., from houses or persons possessed by them. Cp. *Indrajāla*. pp. 315-320.
35. मारणम्—Killing another by means of black arts. Cp. *Indrajāla*. pp. 320-323.
Kalās 31-35, as well as 'stambhaṇam' (26-30), are technically known among their professors as 'śaṭkarma'.
36. कालवद्धानम्—Deception of time; *i.e.*, an art by which one can prolong one's life. Cp. *Indrajāla*. pp. 376-379.
37. पयसि हवचातुर्यम्—Cleverness in diving in water.
38. पादुकासिद्धिः—An occult art, by means of which one can transport oneself instantly to any desired place. Cp. *Indrajāla*. pp. 371-374.
39. मृत्सिद्धिः—'Siddhi' of clay; an art by means of which a person can produce anything he likes out of clay.
40. घटिकासिद्धिः—Success or 'siddhi' in 'ghaṭikās' or pills, by means of which one can produce

all sorts of wonders. Cp. *Indrajāla*. pp. 2, 374, 375, and pp. 36, 84 of *Vetālapancaviṃśatikā*.

41. ऐन्द्रजालिकम्—*Indrajāla*, production of illusion. Cp. II. 77, 78, 48, III. 20, IV. 38, and ‘*pāgasāsanīm*’, *Sūtra*. 2.2.27.
42. अञ्जनम्—*Collyrium*; *i.e.*, making all sorts of collyriums—*bhūtānjana*, *dravyānjana*, *adṛṣyānjana*, etc. Cp. *Indrajāla*. pp. 353-360.
43. नरदृष्टिवञ्चनम्—Deception of human sight.
44. स्वरवञ्चनम्—Deception of the voice; *i.e.*, deceiving others by disguising the voice.
45. मणिसिद्धिः—‘*Siddhi*’ or success in precious stones, by means of which one can work wonders.
46. मन्त्रसिद्धिः—Success in ‘*mantras*’.
47. औषधसिद्धिः—‘*Siddhi*’ or success in drugs and medicines.
48. चोरकर्म—Thieving, stealing. Chap. *Daśa*. I. 11. ‘*couryaurodarādikapatakalāpraudhatvam*’.
49. वृत्रक्रिया—Work in ‘*vṛitra*’, a kind of stone:
50. लोहक्रिया—Work in metals.
51. अश्मक्रिया—Work in stone.
52. मृत्क्रिया—Work in clay.
53. दारुक्रिया—Work in wood. Cp. III. 36, IV. 26.
54. वेणुक्रिया—Work in bamboos.
55. वर्मक्रिया—Armour-making.
56. अञ्जनक्रिया—Making collyrium.
57. अदृश्यकरणी—An art by which a person makes himself invisible. Cp. ‘*antaddhāṇīm*’, *Sūtra*. 2.2.27.

58. दूरकरणी—An art by means of which one can transport oneself or others to a distance.
59. मृगयारतिः—Love of hunting.
60. वाणिज्यम्—Trading.
61. पाशुपाल्यम्—Cattle-rearing.
62. कृषिः—Agriculture.
63. आह्वकर्म—Science of war. Cp. III. 63, I. 74-76.
64. लावकुकुटमेपादियुद्धकारणकौशलम्—Proficiency in making 'lāvakas' (a kind of bird), cocks and rams fight. Cp. III. 42, VI. 41, I. 85.

A Variant of this list is given in *Śivatatva-ratnākara*. (See Appendix B). In this list the terms 3, 11, 16, 17, 20, 25, 27, 29, 30, 39, 45, 46, 47, 49, 50, 55, 56, 63 and 64 do not occur. In their stead, appear the following terms:—

न्यायशास्त्रम्—Logic. Cp. II. 80, IV. 6.

समस्तावधानम्—Attention on all; *i.e.*, giving one's attention simultaneously to many things; *e.g.*, playing cards, chess and 'ganjiph', counting the strokes of a bell, hearing English, Sanskrit, and Latin verses and calculating the answers of 3 or 4 sums in arithmetic, at the same time.

स्वर्णपरीक्षा—Testing of gold.

तुरगलक्षणम्—Marks of horses. Cp. I. 29, II. 53.

गजशास्त्रम्—Science concerning elephants; *i.e.*, marks of elephants, their training, etc. Cp. I. 29, II. 54.

दशदोहलविद्याः—The ten processes concerning plants.

असिस्तम्भः—Suspending the power to injure of swords. Cp. VII. 27.

वायुस्तम्भः—Suspension of the properties or powers of Air.

मोहनम्—The art of fascinating others, so as to make them devoid of discrimination. Cp. Sūtra. 2.2.27. ‘mohanākaraṇa’.

वाक्सिद्धिः—‘Siddhi’ or success in speech, an art by the acquirement of which all that a person speaks will come to pass.

मन्त्रौषधिसिद्धिः—‘Siddhi’ or success in precious stones and drugs. Cp. VII. 46, 47.

चित्ररोहक्रिया—Work in ‘citraroḥa’ (?).

चर्मक्रिया—Work in leather.

अम्बरक्रिया—Cloth-making.

आंसंवर्कम्—Preparation of ‘āsavas’—a kind of drink. Cp. III. 24.

महेन्द्रजालः—‘Mahendrajāla’; wonderworking.

रतिकौशलम्—Cleverness in ‘rati’.

लावुकायोधनप्रौढिः—Cleverness in making ‘lāvakas’ fight. Cp. VII. 64, III. 42.

मेषयुद्धादिकौशलम्—Cleverness in making rams, etc., fight. Cp. VII. 64, III. 42, VI. 41, I. 85.

It is to be remarked that a large number of the Kalās in this list are concerned with occult arts and alchemy—namely nos. 12, 13, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 57 and 58.

LIST VIII. (Śukranītisāra).

This list is given in p. 126 of Śukranītisāra.
(See Appendix C).

1. हावभावादिसंयुक्तं नर्तनम्—Dancing accompanied with appropriate action of the features of the face, arms, etc. Cp. I. 4, II. 37, III. 3, IV. 12, VI. 2.
2. अनेकवाद्यविकृतौ तद्वादनेज्ञानम्—Proficiency in playing many musical instruments together; *i.e.*, in playing in an orchestra. Cp. I. 6, II. 37, III. 2, IV. 11, VI. 3.
3. स्त्रीपुंसोः वस्त्रालङ्कारसन्धानम्—Performing the toilette of men and women; *i.e.*, assisting men and women in putting on their dress, jewels, etc. Cp. I. 25, 26, III. 16, VI. 23.
4. अनेकरूपाविर्भावकृतिज्ञानम्—Making forms come out; *i.e.*, creating different forms in stone, wood, etc. Cp. I. 3, II. 32, 33.
5. शय्यास्तरणसंयोगपुष्पादिग्रथनम्—Making beds and garlands with flowers. Cp. I. 18, II. 44, III. 14, VI. 9, III. 10.
6. द्यूताद्यनेकक्रीडाभी रञ्जनम्—Entertaining oneself with gambling and other pastimes. Cp. I. 10, III. 59, VI. 25-45, VII. 6.
7. अनेकासनसन्धानै रते ज्ञानम्—Knowledge of 'rati' in different postures. IV. 37, V. 82-96, VII. 5.
8. मकरन्दासवादीनां मद्यार्दीनां कृतिः—Preparation of 'makaraṇ-dāsava' (flower-juice) and other intoxicating liquors. Cp. III. 24.
9. शल्यगूडाहृतौ सिरात्रणव्यधे ज्ञानम्—Knowledge of extracting buried arrows, spears, etc., and of cutting open wounds and blood-vessels.

10. हीनादिरससंयोगान्नादिसम्पादनम्—Cooking of various dishes with the various 'rasas' combined in different proportions. Cp. III. 23, VII. 19, VI. 10.
11. वृक्षदिप्रसारोपपालनादिकृतिः—Grafting and care of plants. Cp. III. 41, VII. 20.
12. पाषाणधात्वादित्तिभस्मकरणम्—Melting and reduction to 'bhasma' of stones, minerals, etc. Cp. I. 69, III. 39, VII. 22.
13. यावदिधुविकाराणां कृतिज्ञानम्—Knowledge of the preparation of all things that can be prepared from the juice of sugarcane.
14. धात्वौषधीनां संयोगक्रियाज्ञानम्—Knowledge of the combinations of minerals and herbs.
15. धातुसाङ्कर्यपार्थक्यकरणम्—Combination and isolation of minerals.
16. धात्वादीनां संयोगापूर्वविज्ञानम्—Knowledge of making new combinations of minerals, etc.
17. क्षारनिष्कासनज्ञानम्—Knowledge of ejecting the 'kshāra-rasa' (one of the 6 'rasas') out of minerals, etc.
18. पदादिन्यासतः शस्त्रसन्धाननिक्षेपः—Making the bow ready, by placing the foot upon the bow, etc., and shooting with it.
19. सन्ध्याघाताकृष्टिभेदैः मलयुद्धम्—Wrestling in different ways, using different falls and grips. Cp. II. 3, VII. 18, I. 70, 72.
20. अभिलक्षिते देशे यन्त्रायस्त्रनिपातनम्—Shooting arrows, etc., from 'yantras' so as to hit any desired place.
21. वायसङ्केततो व्यूहरचनादि—Arranging an army into 'vyūhas', making it into squares, etc., to the play of musical instruments. Cp. I. 53.

22. गजाश्वरथगत्या तु युद्धसंयोजनम्—Joining in a battle on an elephant, on horseback or on a chariot.
23. विविधासनमुद्राभिः देवतातोषणम्—Pleasing the deities by various postures, and 'mudrās'. Cp. II. 3.
24. सारथ्यम्—Charioteering. Cp. IV. 8.
25. गजाश्वादेः गतिशिक्षा—Training of elephants and horses. Cp. I. 63, 64, IV. 14.
26. मृत्तिकाकाष्ठपाषाणधातुभाण्डादिसत्क्रिया—Making of pots, etc., in clay, wood, stone and minerals. Cp. VII. 51, 52.
27. चित्राद्यालेखनम्—Painting of pictures. Cp. VI. 6, IV. 17, III. 4.
28. तटाकवापीप्रासादसमभूमिक्रिया—Digging tanks and wells, and making the ground even.
29. घट्याद्यनेकयन्त्राणां वाद्यानां कृतिः—Construction of machines like the water-wheel, and of musical instruments. Cp. VI. 14, IV. 30, III. 50.
30. ह्रीनमध्यादिसंयोगवर्णाद्यै रञ्जनम्—Painting with colours mixed in different proportions.
31. जलवाय्वग्निसंयोगनिरोधैः क्रिया—Working with water, fire and air, conjointly, and with water, fire and air which are confined.
32. नौकारथादियानानां कृतिज्ञानम्—Knowledge of how to construct ships, chariots and other means of locomotion. Cp. VI. 15, III. 50.
33. सूत्रादिरज्जुकरणविज्ञानम्—Knowledge of how to make yarn, ropes, etc.
34. अनेकतन्तुसंयोगैः पटबन्धः—Weaving of cloth from yarn. Cp. III. 34.
35. रत्नानां वेधादिसदसज्ज्ञानम्—Knowledge of how to test precious stones, and of cutting, boring, etc.,

of precious stones. Cp. I. 38, III. 38, IV. 25, VI. 11, VII. 15.

36. स्वर्णादीनान्तु याथार्थ्यविज्ञानम्—Knowledge of testing gold, etc.

37. कृत्रिमस्वर्णरत्नादिक्रियाज्ञानम्—Knowledge of how to manufacture artificial gold, and artificial precious stones.

38. स्वर्णाद्यलङ्कारकृतिः—Construction of ornaments from gold, etc. Cp. I. 83, III. 17, 19.

39. लेपादिसत्कृतिः—Enamelling, polishing, varnishing, etc. Cp. 'leppakammie', Praśna. p. 519.

40. चर्मणां मार्दवादिक्रियाज्ञानम्—Knowledge of tanning leather, etc.

41. पशुचर्माङ्गनिर्हारज्ञानम्—Knowledge of how to remove the hide and the various members from the bodies of animals.

42. दुग्धदोहादिघृतान्तं विज्ञानम्—Knowledge of the processes of milking and of making ghee from milk.

43. कञ्चुकादीनां सीवने विज्ञानम्—Knowledge of how to sew bodices, etc. Cp. VI. 12, III. 25, II. 83.

44. जलेबाह्वादिभि स्तरणम्—Swimming in water with hands, etc. Cp. IV. 33, II. 6, VII. 37.

45. गृहभाण्डादे र्माजने विज्ञानम्—Cleverness in cleaning houses, household utensils, etc.

46. वस्त्रसंमार्जनम्—Cleaning cloths.

47. क्षुरकर्म—Shaving.

48. तिलमांसादिस्नेहानां निष्कासने कृतिः—Extracting the essence from seasmum, meat, etc.

49. सीराद्याकर्षणज्ञानम्—Knowledge of ploughing, hoeing, etc.

50. वृक्षाद्यारोहणेज्ञानम्—Knowledge of climbing trees, etc. Cp. IV. 36.

51. मनोनुकूलसेवायाः कृतिज्ञानम्—Knowledge of how to please another by service.
52. वेणुतृणादिपात्राणां कृतिज्ञानम्—Knowledge of how to make vessels out of bamboo, reeds, etc. Cp. VII. 54.
53. काचपात्रादिकरणविज्ञानम्—Knowledge of how to make vessels, etc., of glass.
54. जलानां संसेचनं संहरणम्—Bringing and sprinkling of water.
55. लोहाभिसारशस्त्रास्त्रकृतिज्ञानम्—Knowledge of how to make weapons out of metals. Cp. IV. 50.
56. गजाश्ववृषभोष्ट्राणां पल्याणादिक्रिया—Making saddles, etc., for riding elephants, horses, bulls and camels.
57. शिशोस्संरक्षणे धारणे क्रीडनेज्ञानम्—Knowledge of how to bring up, carry, and play with, children. Cp. III. 61.
58. अपराधिजनेसुयुक्तताडनज्ञानम्—Knowledge of how to beat offenders well.
59. नानादेशीयवर्णानां सुसम्यग्लेखनेज्ञानम्—Knowledge of writing well the alphabets of the various countries. Cp. I. 1, IV. 44, VI. 4, VII. 8, 9.
60. ताम्बूलरक्षादिकृतिविज्ञानम्—Knowledge of how to prepare 'tāmṇūla', etc. (i.e., betel leaves, areca nuts, slaked lime, etc.).
61. आदानम्—Taking or comprehension (of the Kalās).
62. आशुकारित्वम्—Quick work.
63. प्रतिदानम्—Giving again or teaching, of the Kalās.
64. चिरक्रिया—Working slowly.

LIST IX. (Kalpāntarvācyāni).

This list is given by the author of the Kalpāntarvācyāni, a commentary on the Kalpasūtra, as an alternative explanation of the term 'bāvattariṃ kalāo'. (See Appendix D).

1. लिखितम्—Writing. Cp. I. 1, IV. 44, VI. 4, VII. 8, VIII. 59.
2. पठितम्—Reading. Cp. III. 31, VI. 10.
3. सङ्ख्या—Numbers, *i.e.*, arithmetic. Cp. II. 3, I. 2.
4. गीतम्—Singing. Cp. I. 5, II. 38, III. 1, IV. 13, 22, VI. 1, VII. 3.
5. नृत्यम्—Dancing. Cp. I. 4, II. 37, III. 3, IV. 12, VI. 2, VIII. 1.
6. तालः—A musical instrument, to beat time with. Cp. IV. 11.
7. पटहः—A kind of drum.
8. मुरजः—Another kind of drum. Cp. IV. 12.
9. वीणा—The 'Viṇā'. Cp. IV. 12, II. 36.
10. वंशः—The flute.
11. भेरीपरीक्षा—Testing a 'bherī' (a kind of drum).
As regards 6-11, compare I. 6, II. 37, III. 2, IV. 11, VI. 3, VIII. 2.
12. द्विरदशिक्षा—Training of elephants. Cp. I. 64, IV. 14, VIII. 25.
13. तुरगशिक्षा—Training of horses. Cp. I. 63, VIII. 25.
14. धातुवादः—Combination, reduction to, 'bhasma', etc., of minerals. Cp. I. 69, III. 39, VII. 22, VIII. 12-17.
15. दृग्वादः—Obscure.
16. मन्त्रवादः—Magic and sorcery.
17. बलिविनाशः—Destruction of wrinkles.
18. पलितविनाशः—Destruction of grey hair.
19. रत्नलक्ष्म—Marks of jewels. Cp. I. 38, III. 48, IV. 25, VI. 11, VII. 15, VIII. 35.
20. नारीलक्ष्म—Marks of women. Cp. I. 27, II. 51.

21. नृलक्षम्—Marks of men. Cp. I. 28, II. 52.
22. छन्दः—Metrics (or the Vedas). Cp. II. 67, IV. 48.
23. तर्कः—Logic. Cp. II. 80, IV. 2.
24. सुनीतिः—Science of Morals, Politics, and Economics.
Cp. II. 75, IV. 5.
25. तत्त्वम्—Philosophy.
26. कविता—Composing poetry. Cp. II. 31, III. 54,
VII. 4.
27. ज्योतिः—Science of the Stars and Planets.
Cp. II. 69, IV. 24, and I. 41-44.
28. श्रुतिः—The Vedas. Cp. II. 61, 63.
29. वैद्यकम्—Medical Science. Cp. IV. 29.
30. भाषाः—Languages. Cp. IV. 45, III. 47, VII. 7.
31. योगः—The 'Yoga' philosophy. Cp. II. 71.
32. रसायनम्—Preparation of 'rasāyanas'.
33. अञ्जनम्—Collyrium, *i.e.*, preparation of collyriums.
Cp. VII. 42, 56.
34. लिपिः—Writing, engraving. Cp. VII. 9, IV. 44, etc.
35. स्वप्नः—Dreams. Cp. II. 49.
36. इन्द्रजालम्—'Indrajāla'; wonderworking. Cp. II. 77,
78, 48, III. 20, IV. 38, VII. 41.
37. कृषिः—Agriculture. Cp. VII. 62.
38. वाणिज्यम्—Commerce. Cp. VII. 60.
39. नृपसेवनम्—Service of the King.
40. शकुनम्—Augury, omens and portents. Cp. III. 49,
VII. 13.
41. वायुसंसूचनम्—Indication of the wind.
42. अग्निसंसूचनम्—Indication of fire.

43. दृष्टिः—Seeing.
44. लेपनम्—Enamelling, varnishing, polishing, etc.
Cp. VIII. 39.
45. मर्दनम्—Beating.
46. ऊर्ध्वगतिः—Going upwards.
47. घटबन्धः—Binding pots.
48. घटभ्रमः—Turning pots.
Terms 46, 47, probably refer to the Water-wheel—a wheel, to which pots are attached at small intervals and which is used to raise water from wells.
49. पत्रच्छेदनम्—Cutting of leaves into various shapes.
Cp. I. 82, II. 85, III. 5, IV. 18, VI. 8.
50. मर्मभेदनम्—Hitting the vital parts (with arrows, spears, etc.). Cp. II. 26.
51. फलाकृष्टिः—Attracting fruits.
52. अम्बुज्ञता—Divination of water. See chap. 54, Bṛihat.
53. वृष्टिज्ञता—Knowledge of when it will rain. See chap. 28, Bṛihat.
54. लोकाचारः—Customs of the world. Cp. VI. 20.
55. जनानुवृत्तिः—Following the people. Cp. VIII. 51.
56. फलभृत्—Probably for ‘phalaka’ (and ‘bandhanam’).
Binding and carrying the shield.
57. खड्गबन्धनम्—Binding a sword.
58. क्षुरीबन्धनम्—Binding a dagger.
59. मुद्रा—The ‘mudrās’. Cp. II. 3, VIII. 23.
60. अयःकृतिः—Working in iron. Cp. VII. 50.
61. रदकृतिः—Working in ivory. Cp. IV. 27.
62. काष्ठकृतिः—Working in wood. Cp. VIII. 26, IV. 26,
III. 36.

63. चित्रकृतिः—Making of pictures ; painting. Cp. VIII. 27, VI. 6, IV. 17, III. 4.
64. दैर्युद्धम्—Fighting with the arms. Cp. I. 70.
65. दृग्युद्धम्—Fighting with eyes (!).
66. मुष्टियुद्धम्—Fighting with fists. Cp. I. 72.
67. दण्डयुद्धम्—Fighting with sticks. Cp. I. 71.
68. असियुद्धम्—Fighting with swords. Cp. I. 73.
69. वाग्युद्धम्—Fighting with words.
70. गारुडदमनम्—Subduing a 'garuḍa' or Brahmini kite.
71. सर्पदमनम्—Subduing a serpent.
72. भूतदमनम्—Subduing of demons.

LIST X.

A different list which however corresponds with the above lists in certain points is given in Aṣvaghosha's Sūtrālaṃkāra, chapter IX, tale 61. I quote it according to Huber's translation from the Chinese (p. 311), the Sanskrit Text being lost. Compare also Sylvain Lévi in Journal Asiatique, July—August, 1908, p. 89.

1. The Veda. Cp. II. 63.
2. The art of shooting. Cp. I. 61, II. 7, 10, etc.
3. Medicine. Cp. IX. 29, IV. 29.
4. Sacrifices. Cp. II. 68.
5. Astronomy. Cp. IX. 27, IV. 24, II. 69, and I. 41-44.
6. Grammar. Cp. II. 64, IV. 1.
7. The origin of scriptures.
8. Books about the arrangement of sacrifices.
9. Books about eloquence.
10. The art of Love. Cp. IV. 37, VII. 5.

11. Books about the acquisition of fortune.
12. Books about pure families.
13. Books about all objects.
14. Books about the Ten Names.
15. Books about numbers and mathematics.
16. Books about playing chess.
17. Books about playing dice. Cp. III. 60.
18. Books about the study of the Origin.
19. Books about music and singing.
20. Books about playing the lute.
21. Books about dancing and laughing. Cp. IV. 12.
22. Jugglery.
23. Education. Cp. III. 61.
24. The arrangement of flowers. Cp. II. 44, III. 14,
VI. 9, VIII. 5.
25. Shampooing. Cp. III. 44, II. 45.
26. Books about precious stones. Cp. I. 38, III. 38,
IV. 25, etc.
27. Books about precious clothes.
28. Books about silk weaving.
29. Books about wax work. Cp. I. 24, II. 82.
30. Stratagems.
31. Serving. Cp. IX. 39, VIII. 51.
32. Sculpture. Cp. I. 3, II. 32, 33.
33. The art of painting. Cp. VI. 6, IV. 17, III. 4.
34. Literature. Cp. IV. 39-43, III. 55, 56, II. 61, 62.
35. Combinations of perfumes. Cp. I. 23, II. 86.
36. Arrangement of garlands. Cp. II. 44, III. 14.

37. The explanation of dreams. Cp. II. 49, IX. 35.
38. Interpretation of the flight of birds. Cp. III. 49, VII. 13.
39. The horoscope of boys and girls.
40. The training of elephants. Cp. I. 64, IV. 14, VIII. 25, IX. 12.
41. The art of beating the drum. Cp. I. 8, III. 27, etc.
42. The rules of battles.
43. The training of horses. Cp. I. 63, VIII. 25, IX. 13.
44. The management of the lance.
45. Jumping. Cp. II. 1, IV. 34.
46. Running. Cp. II. 4.
47. Fording a river. Cp. II. 6.

THE ORIGIN OF THE KALĀS.

There seems to be no reasonable doubt that the Kalās came into being as the Indians became civilised, and that therefore some of the Kalās included in any one list (*e.g.*, dancing and singing) are long posterior to others in the same list. The Kālikā Purāṇa (Chap. 2), however, narrates the following curious account of how the 64 Kalās came into being. Brahmā (the Creator) first created the Prajāpatis and the mindborn Rishis; he then created Sandhyā and then Manmatha, the God of Love. On him, Brahmā conferred a boon that no being in the universe—himself, Viṣṇu and Śiva included—could withstand the might of

his arrows; he therefore asked Manmatha to help him in the work of creation, by making men and women fall in love. The Prajāpatis and Rishis gave him the name of Manmatha and promised that he would get Daksha's daughter in marriage. Thereupon the mischievous Manmatha wanted to prove the truth of Brahmā's boon and seeing that Sandhyā was present, directed his arrows impartially at Brahmā, the Prajāpatis and Rishis and Sandhyā, so that they felt an irrepressible love for Sandhyā, who on her part, felt in the same way. As Brahmā and Sandhyā were thus experiencing the feelings of love, there were born the 49 'bhāvas' of Brahmā, and the 'hāvas', ('bib-boka', etc.) and the 64 Kalās of Sandhyā.

उदीरितेन्द्रियोधाता वीक्षाञ्चके यदाथ ताम् ।

तदैव ह्यूनपञ्चाशद्भावा जाताः शरीरतः ॥

विब्वोकाद्या स्तथाहावा श्रुतुष्पष्टिकला स्तथा ।

कन्दर्पशरविद्धायाः सन्ध्याया अभवन्दिवाः ॥

Kālikā Purāṇa, II. 28, 29.

Such is the account given by the Kālikā Purāṇa. The other (and, undoubtedly) earlier Purāṇas like the Viṣṇu Purāṇa, Vāyu Purāṇa, etc., fail to give an account of the origin of the Kalās even when describing the origin of the Vedas, Upavedas, Purāṇas, etc. This omission seems to show that no such account was in existence at the time of their composition.

The Kalās, being intended for the service of man in this world, naturally form part of the Lower Science or 'aparā vidyā' of the Muṇḍaka Upanishad.* It is therefore interesting to see that one 'śloka', while admitting that 63 of them form part of the Lower Science, says that the 64th Kalā† is Brahma-vidyā.

‡ क्षुद्रास्त्रिषष्टिविद्यास्यु स्तत्फलं नश्वरं भवेत् ।

चतुष्षष्टितमी ब्रह्मविद्या त्वमृतदायिनी ॥

(Source unknown).

MANLY AND WOMANLY KALĀS.

The Kalās are divided into 2 classes—'strika-lāḥ' and 'purushakalāḥ' by the commentators according as they are appropriate for women or for men. Thus the Kalās in List I are for men as is observed by the author of the Kalpāntarvācyāni (अत्र नन्दिसूत्रोक्ताः ७२ पुरुषकला इमाः लेहं गणियम् etc. Berliner Verzeichnis, II. p. 662). Abhayadeva, too, remarks in p. 55, Vipāka-sūtra:—लेखाद्याः शकुनरुतपर्यन्ता गणितप्रधानाः कलाः प्रायः पुरुषाणामेवाभ्यासयोग्याः । गीतनृत्यादीनि विशेषतः पण्यस्त्रीजनोचितानि चतुष्षष्टिर्विज्ञानानि ते गणिकागुणाः । अथवा वात्स्यायनोक्तान्यालिङ्गनादीन्यष्टौ वस्तूनि । तानि च प्रत्येकमष्ट-भेदत्वाच्चतुष्षष्टिर्भवन्ति ॥

* It is significant that the Kalās are not mentioned as forming part of the Lower Science in the Muṇḍaka Upanishad, and the Chāndogya Up. Chap. 7.

† A comparison of App. A with App. B shows that the 2 terms—'catnshshtikalāḥ' and 'catnshashṭividyaḥ' are synonymous.

‡ This 'śloka' refers to an entirely different list of Kalās, which, I have so far not succeeded in finding.

Thus in the opinion of Abhayadeva, the Kalās in List I are intended for men, and those in Lists III and V are intended for women and especially, for courtesans.

This, however, does not mean that the Kalās in list I were learnt exclusively by men, for we find in the Vipākasūtra that a certain courtesan named Kāmajjhayā was learned in the 72 Kalās and also possessed the 64 courtesan's accomplishments. (कामज्ज्ञया णामं गणिया होत्था बावत्तरीकलापण्डिता चऊसद्विगणिआगुणोववेता. Vipākasūtra, p. 55) Adopting this classification, we find that the Kalās in Lists I, II, IV, VII, VIII, IX and X are for men and the Kalās in Lists III, V and VI for women.

The 64 Women's (or Courtesan's) accomplishments—'caūsatt̐himahilāguṇe' have a close relation with the 64 Kalās. In the opinion of Abhayadeva, the 64 'mahilāguṇe' are no other than the Kalās in List III or List V. The author of the Kalpāntarvācyāni, however, gives a list of 64 'guṇas', which in no way differs from a list of Kalās. (See Appendix E.)

THE 64 'TANTRAS'.

In many books on 'tantra' (*e.g.*, the Vāma-keṣvaratantra), we find a list of 64 'tantras' given. These 'tantras', though entirely unconnected with the Kalās (See Appendix F.) are used for practically the same purposes for which Kalās are used. Thus, for instance,

the 'Mahāmāyāṣambaratantra' is used to produce illusions (Cp. II. 77, 78, 48, etc.). The 'Kalāvāda' deals with Erotics, the 'Kuṇḍikāmata' with the means for acquiring 'ghaṭikāsiddhi' (VII. 40) and the 'Trotala' with the means for the acquisition of the 'siddhis' of 'ghaṭikās', 'anjanas' and 'pādukās' (VII. 40, 42, 38).

Thus the 64 'tantras' are substantially nothing but the 64 Kalās or the means for the acquisition of the Kalās; but the origin of the 'tantras' is quite different. The 'tantras' are all said to have been originally taught by Śankara to Pārvatī; while we find no such thing said of the Kalās, which came into being as the people became civilised, and were then made up into lists. (See also p. 63 *supra*.) It is said that there are also 64 subsidiary 'tantras'.

DATE OF THE LISTS.

Weber, in *Indische Studien* 16, 283, infers from the words 'itthilakkhaṇaṃ', 'purisalakkhaṇaṃ', etc., that the Jain lists were composed about the same time as the Mahābhāṣya, which on Pāṇini, 4-2-60 gives 'gaṇalakṣaṇikāḥ', 'āśvalakṣaṇikāḥ' as examples. The mere occurrence of the words 'itthilakkhaṇaṃ' etc., is not enough to warrant the above conclusion. Moreover, the date of the Mahābhāṣya itself is not definitely settled; Bhāṇḍārkar assigns it to 142 B.C; Weber¹ to after the birth of

¹ Lectures on Indian Literature.

Christ and Paṇḍits Satyavrata Śyāmāṣrami¹ and Bhāṣhyācārya² to before the birth of Buddha.

On historical, metrical and other grounds, Prof. Jacobi has concluded that the Sūtras composing the Jaina Siddhānta were composed after the Pāli Tripiṭaka and before Lalitavistara. He accordingly assigns the composition of the Jaina Sūtras to the period 320-300 B.C.³

The date of the Lalitavistara cannot be exactly determined. A Chinese translation of it, made in 76 A.D. is unfortunately lost. Dr. Rājendralāla Mitra's opinion that the book was written between 400 and 350⁴ B.C. does not rest on secure grounds. Under the circumstances, therefore, the 1st century B.C. is a safer date as it is neither too early nor too late.

Vātsyāyana's Kāmasūtra is mentioned by Bhavabhūti and Subandhu in his Vāsavadattā. This shows that Vātsyāyana's book is earlier than 600 A.D. If, however, Vātsyāyana is earlier than Kālidāsa, as Dr. Peterson⁵ suggests, this would place the Kāmasūtra earlier than the 4th century A.D. or (according to Kale, Vaidya, etc., who place Kālidāsa

¹ Appendix to the Nirukta (Bibliotheca Indica Series).

² Pamphlet on the Age of Patanjali.

³ See Jacobi's Introdn. to xxii, S.B.E. Series.

⁴ Introduction to the Lalitavistara.

⁵ See the extract from Peterson's essay, printed in the Kāmasūtra.

himself in the 1st century B.C.) the 1st century B.C.

List V—Pancāla's list—is mentioned by Vātsyāyana himself and is therefore earlier than the Kāmasūtra. We have also seen that in the opinion of Abhayadeva and Yaśodhara, this list is older than the Jaina Sūtras, and that it was composed at a time when the division of the Rik Saṃhitā into 64 'adhyāyas' was still felt as recent. The references to the Kalās in the Rāmāyaṇa, Mahābhāṣya and Lalitavistara (p. 417) were most probably made to this list.

List IV occurs in Kādambarī, which was written by Bāṇa who lived in the court of Harshavardhana Śilāditya (606—648 A.D.).

Of Lists VI and IX we cannot find out the approximate date with any certainty, as we do not know in what books these lists originally occur. There now remain but 2 lists—Lists VII and VIII. These are given in Śivatatvaratnākara and Śukranītisāra respectively, two books whose dates are not exactly known. Most probably, both are earlier than the 7th century A.D.

Thus, then, List V—Pancāla's list—is the oldest of all the lists given here. Next come in order the lists from the Jaina Sūtras, Lalitavistara and the Kāmasūtra. Of the remaining four lists, most probably, List VI is later than Lists VII and VIII and list IX later than all three.

THE LITERATURE OF THE KALĀS.

Some of the Kalās, such as 'koṣa', 'alaṃkāra', 'śikshā', 'chandaḥ', etc., are dealt with in the Agnipurāṇa (See chapters 328—347). The Garuḍapurāṇa too, has some chapters on 'sāmudrikaṃ', 'ratnaparīkshā' and on the marks of men, women, horses, etc. (See Agnipurāṇa, chap. 243—246, Garuḍapurāṇa, I, chapters 63—80). These latter, as well as 'vāstuvidyā', 'vṛikshāyurveda', 'gandhayukti', etc., are dealt with in the Bṛihat Saṃhitā (see chapters 50—96). The books on 'Tantra', 'Mantrasāstra', and 'Indrajāla' devote themselves to the explanation of the occult arts like 'indrajāla', 'maṇisiddhi', etc. The chemical arts like 'rasavāda' and 'dhātuvāda' are to some extent dealt with in medical books like Rasaratnākara, etc. On dancing and music there are many books like Sangītaratnākara extant.

The culinary arts, 'annavidhi', 'pānavidhi', etc., are also dealt with in books on Vaidyaka or medicine. Of the books on 'Jyotiḥ', 'Sāṃkhyāṃ', 'Vyākaraṇaṃ', etc., there is no necessity to speak about, each of them—having, as is well known, a large literature of its own. The erotic arts, too, are treated of in many books like the Kāmasūtra, Kandarapacūdāmaṇi, etc.

On the remaining Kalās, like 'dyūtaṃ', 'mālyagrathanaṃ', 'corakarma', etc., there are no books now extant; many books on these subjects seem to have been current but these

are all now lost and a stray extract or two in some commentary, and sometimes, a bald mention of a string of writers, are now the only remnants of this great literature*.

* Recently, however, there has come into existence a monthly magazine in Madras (The Bhautikakalānidhi, edited by Messrs. B. Sūryanārāyaṇa Rao, and Paṇḍit Subbarāya Śāstry) with the object of giving out to the world the contents of many books on Kalās written by ancient Ṛishis. The editors announce that they will give the contents of the following books, among others :—

Anukaraṇaśabdaśāstra of Kāndika Ṛishi.

Strīlakṣhaṇaśāstra of Śākatāyana Ṛishi.

Purushalakṣhaṇaśāstra of Babhru Ṛishi.

Kanyālakṣhaṇaśāstra of the same Ṛishi.

Śakuniśāstra of Gārgi Maharshi.

Śilpaśāstra of Maya.

Sūpaśāstra of Sukeśa.

Mālinīśāstra of Ṛiṣyaṣṛinga.

Pralayaśāstra of Vyāsa.

Kālaśāstra of Shaṇmukha.

Māyāvādaśāstra of Ānjaneya.

Dhātuvāda
and
Vishavāda } of the Aṣvins.

Gāruḍaśāstra of Vāla.

Citrakarma of Bhīma.

Mallaśāstra of Malla.

Bharataśāstra of Gaṇapati.

Parakāyapraveśaśāstra of Vālakhilya.

Aṣvahrīdaya of Sugrīva.

Gajahrīdaya of Kumāraswāmy.

Ratnaparikshā of Vātsyāyana.

Indrajāla
and
Mahendrajāla } of Virabāhu.

Arthaśāstra of Vyāsa.

Śaktitantra of Agastya.

Saudāminikalāśāstra of Matanga.

Śuddhavidyākālpa of Āṣvalāyana.

Brahmāṇḍasāra of Vyāsa..

APPENDIX A

इतिहासागमाद्याश्च कान्यालङ्कारनाटकम् ।
 गायकत्वङ्कवित्वञ्च कामशास्त्रन्दुरोदरम् ॥
 देशभाषालिपिज्ञानं लिपिकर्म च वाचकम् ।
 सर्वाणिचापदानानि स्वरशास्त्रन्तु शाकुनम् ॥
 सामुद्रिकं रत्नशास्त्रं रथाश्वगतिकौशलम् ।
 मल्लशास्त्रं सूदकर्म भूरुहाणाञ्चदोहदम् ॥
 गन्धवादो धातुवादः खन्यावादो रसस्य च ।
 जालवादो मिसंस्तम्भः खड्गस्तम्भो जलस्य च ॥
 वाचस्तम्भो वयस्तम्भो वश्याकर्षणमेव च ।
 विद्वेषणोच्चाटनञ्च मारणङ्कालवञ्चनम् ॥
 पयसिप्लवचातुर्यं पादुकासिद्धिरेव च ।
 मृत्सिद्धिर्घटिकासिद्धि रैन्द्रजालिकमेव च ॥
 अञ्जनं नरदृष्टेस्तु वञ्चनं स्वरवञ्चनम् ।
 मणिमन्त्रौषधानाञ्च सिद्धयश्चोरकर्म च ॥
 वृत्रलोहाश्ममृदारु वेणुवर्माञ्जनक्रियाः ।
 अदृश्यकरणी दूरकरणी मृगयारतिः ॥
 वाणिज्यं पाशुपाल्यञ्च कृषिराहवकर्म च ।
 लावकुकुटमेषादि युद्धकारणकौशलम् ॥

Amṣubodhini of Bharadvāja.

Ākāṣatantra of the same

Meghotpattiprakaraṇa of Āngīrasa, etc.

Extracts from some of the above named books are given in the magazine. These extracts are in the form of 'sūtras' and are followed by the commentary (vṛitti) in verse of Bodhānanda. It is much to be regretted that the publication of this huge—and hitherto unknown—mass of literature on the Kalās is being performed with so much perfunctoriness.

चतुष्पष्टिः कलाश्चैताः कलाविद्धिः प्रकीर्तिताः ।

Campūrāmāyaṇa. p. 311.

APPENDIX B

वेदास्सर्वे सवेदाङ्गा इतिहासस्तथागमः¹ ।

न्यायशास्त्रं न्तथाकाव्यमलङ्कारश्चनाटकम्³ ॥

कवित्वङ्कामशास्त्रञ्च द्यूतनैपुण्यमित्यपि ।

देशभाषापरिज्ञानं लिपिज्ञानं लिपिक्रिया ॥

तथासमस्तावधानं स्वरशास्त्रं च वाचकम् ।

सामुद्रिकञ्च शकुनं परीक्षारत्नसन्ततेः ॥

तथा स्वर्णपरीक्षाच तथा तुरगलक्षणम् ।

गजशास्त्रं मल्लविद्या पाककर्म ततःपरम् ॥

दशदोहलविद्याश्च वादोगन्धकसम्भवः ।

धातुवादः खनीवादो रसवादस्ततःपरः ॥

अग्निस्तम्भो जलस्तम्भो प्यसिस्तम्भनमेवच ।

वायुस्तम्भस्तथा वश्यं मोहनाकर्षणे तथा ॥

उच्चाटनञ्च विद्वेषो मारणं क्कालवञ्चनम् ।

वाणिज्यं म्पाशुपाल्यञ्च कृषिं रासवकर्मच ॥

लावुकायोधनप्रौढि मेषयुद्धेषु कौशलम् ।

रतिकौशलमाखेटो प्यदृश्यकरणीतथा ॥

चित्ररोहाश्ममृद्धारुवेणुचर्माम्बरक्रियाः ।

तथैवदूरकरणी* चोरकर्माञ्जनन्तथा ॥

मन्त्रौषध्योस्तथासिद्धिं स्वरदृष्ट्योस्तुवञ्चने ।

जलप्लवनवाक्सिद्धिं र्घटिकासिद्धयस्तथा ॥

तथैवपादुकासिद्धिं रिन्द्रजालन्ततःपरम् ।

विद्या मेहन्द्रजलेन चतुष्पष्टिं र्मता इमाः ॥

Sṛītatvanidhi, p. 102.

* Incorrectly printed as द्यूतकरणी.

APPENDIX C

कलानां नपृथङ्नाम लक्ष्मचास्तीहकेवलम् ।
 पृथक्पृथक्क्रियाभिर्हि कलाभेदस्तुजायते ॥
 यांयाङ्कलां समाश्रित्य तन्नाम्ना जातिरुच्यते ।
 हावभावादिसंयुक्तनर्तनं तु कला स्मृता ॥
 अनेकवाद्यविकृतौ ज्ञानं तद्वादनेकला ।
 वस्त्रालङ्कारसन्धानं स्त्रीपुंसोश्च कला स्मृता ॥
 अनेकरूपाविर्भावकृतिज्ञानङ्कला स्मृता ।
 शय्यास्तरणसंयोगपुष्पादिग्रथनङ्कला ॥
 द्यूताद्यनेकक्रीडाभी रञ्जनन्तु कला स्मृता ।
 अनेकासनसन्धानै रतेर्ज्ञानङ्कला स्मृता ॥
 कलासप्तकमेतद्धि गान्धर्वे समुदाहृतम् ।
 मकरन्दासवादीनाम्मद्यादीनां कृतिः कला ॥
 शल्यगूढाहतौज्ञानं सिराव्रणव्यधे कला ।
 हीनादिरससंयोगान्नादिसम्पाचनङ्कला ॥
 वृक्षादिप्रसवारोपपालनादिकृतिः कला ।
 पाषाणधात्वादितृति स्तद्भस्मकरणङ्कला ॥
 यावदिक्षुविकाराणां कृतिज्ञानङ्कला स्मृता ।
 धात्वैषधीनां संयोगक्रियाज्ञानङ्कला स्मृता ॥
 धातुसाङ्कर्यपार्थक्यकरणन्तु कला स्मृता ।
 संयोगापूर्वविज्ञानं धात्वादीनाङ्कला स्मृता ॥
 क्षारनिष्कासनज्ञानङ्कलासञ्ज्ञन्तु तत्स्मृतम् ।
 कलादशकमेतद्धि ह्यायुर्वेदागमेषुच ॥
 शस्त्रसन्धाननिक्षेपः पदादिन्यासतः कला ।
 सन्ध्याघाताकृष्टिभेदैर्मल्लयुद्धङ्कला स्मृता ॥

... ..

कलाभिलक्षिते देशे यन्त्राद्यस्त्रनिपातनम् ।
 वाद्यसङ्केततो व्यूहरचनादि कला स्मृता ॥
 गजाश्वरथगत्यातु युद्धसंयोजनङ्कला ।
 कलापञ्चकमेतद्धि धनुर्वेदागमे स्थितम् ॥
 विविधासनमुद्राभिर्देवतातोषणङ्कला ।
 सारथ्यञ्च गजाश्वादेर्गतिशिक्षा कला स्मृता ॥
 मृत्तिकाकाष्ठपाषाणधातुभाण्डादिसत्क्रिया ।
 पृथक्कलाचतुष्कन्तु चित्राद्यालेखनङ्कला ॥
 तटाकवापीप्रासादसमभूमिक्रियाकला ।
 घट्ट्याद्यनेकयन्त्राणां वाद्यानान्तु कृतिः कला ॥
 हीनमध्यादिसंयोगवर्णाद्यै रञ्जनङ्कला ।
 जलवाय्वग्निसंयोगनिरोधैश्च क्रिया कला ॥
 नौकारथादियानानां कृतिज्ञानङ्कला स्मृता ।
 सूत्रादिरज्जुकरणाविज्ञानन्तु कला स्मृता ॥
 अनेकतन्तुसंयोगैः पटबन्धः कला स्मृता ।
 वेधादिसदसज्ज्ञानं रत्नानाञ्च कला स्मृता ॥
 स्वर्णादीनाञ्च यायार्थ्यविज्ञानञ्च कला स्मृता ।
 कृत्रिमस्वर्णरत्नादिक्रियाज्ञानं कला स्मृता ॥
 स्वर्णाद्यलङ्कारकृतिः कला लेपादिसत्कृतिः ।
 मार्दवादिक्रियाज्ञानञ्चर्मणाञ्च कला स्मृता ॥
 पशुचर्मङ्गनिर्हारक्रियाज्ञानं कला स्मृता ।
 दुग्धदोहादिविज्ञानं घृतान्तन्तु कला स्मृता ॥
 सीवने कञ्चुकादीनां विज्ञानन्तु कला स्मृता ।
 बाह्यादिभिश्च तरणकलासञ्ज्ञञ्जले स्मृतम् ॥
 मार्जनेगृहभाण्डादेर्विज्ञानन्तु कला स्मृता ।
 वस्त्रसंमार्जनञ्चैव क्षुरकर्म कले ह्युभे ॥

तिलमांसादिस्नेहानां कला निष्कासने कृतिः ।

सीराद्याकर्षणे ज्ञानं वृक्षाद्यारोहणे कला ॥

मनोनुकूलसेवायाः कृतिज्ञानङ्कला स्मृता ।

वेणुतृणादिपात्राणां कृतिज्ञानङ्कला स्मृता ॥

काचपात्रादिकरणविज्ञानन्तु कला स्मृता ।

संसेचनं संहरणञ्जलानान्तु कला स्मृता ॥

लोहाभिसारशस्त्रास्त्रकृतिज्ञानङ्कला स्मृता ।

गजाश्ववृषभोष्ट्राणाम्पल्याणादिक्रिया कला ॥

शिशोस्संरक्षणे ज्ञानन्धारणे क्रीडने कला ।

सुयुक्तताडनेज्ञानमपराधिजने कला ॥

नानादेशीयवर्णानां सुसम्यग्लेखने कला ।

ताम्बूलरक्षादिकृतिविज्ञानन्तु कला स्मृता ॥

आदानमाशुकारित्वम्प्रतिदानञ्चिरक्रिया ।

कलासु द्वौगुणौ ज्ञेयौ द्वेकले परिकीर्तिते ॥

चतुष्पष्टिकला ह्येतास्सङ्क्षेपेण निदर्शिताः ॥

Śukranītisāra, p. 126.

APPENDIX D

लिखितपाठितसङ्ख्यागीतनृत्यानितालपटहमुरजवीणावंशभेरीपरीक्षा ।

द्विरदतुरगशिक्षाधातुदृङ्मात्रवादावलिपलितविनाशोरत्ननारीनृलक्ष्म ॥

छन्दस्तर्कसुनीतितत्वकविताज्योतिःश्रुतिर्वेद्यकम्भाषायोगरसायनाञ्जनलिपिस्वप्नेन्द्रजालं कृषिः । वाणिज्यं नृपसेवनञ्च शकुनं वाय्वग्निंसूचनन्दष्टिलेपनमर्दनोर्ध्वगतयो बन्धभ्रमौ द्वौ घटे ॥

पत्रच्छेदनमर्मभेदनफलाकृष्टयगुवृष्टिज्ञतालोकाचारजनानुवृत्तिफलभृत्खड्गक्षुरीबन्धनम् । मुद्रायोरदकाष्टचित्रकृतिदोर्दण्डमुष्टिदण्डासिवाग्युद्धङ्गारुडसर्पभूतदमनं योगाब्दनामालयः ॥

P. 663, Berliner Verzeichnis II.

Prof. Weber, divides the above 3 verses into 72 divisions wrongly; he includes in these 72 the last word—‘yogābdanāmālayaḥ’—as 3 Kalās, whereas the word merely explains that the number of Kalās is 72 and is not a Kalā in itself.

APPENDIX E

The 64 ‘mahilā-guṇe’, are, according to the author of the Kalpāntarvācyāni the following:—

- | | |
|--|---|
| 1. नृत्य Cp. I. 4, III. 3,
VI. 2, etc. | 18. शकुनसागर Cp. III. 49,
VII. 20. |
| 2. औचित्य | 19. क्रियाकल्प Cp. II. 72,
III. 56, etc. |
| 3. चित्र Cp. VI. 6, IV. 17,
III. 4. | 20. संस्कृतजस्प |
| 4. वादित्र* Cp. I. 6, II. 37,
III. 2, VI. 3, etc. | 21. प्रसादनीति |
| 5. मन्त्र Cp. IX. 16. | 22. धर्मनीति |
| 6. तन्त्र | 23. वर्णिकावृद्धि |
| 7. ज्ञान | 24. सुवर्णसिद्धि |
| 8. विज्ञान | 25. सुरभितैलकरण |
| 9. दम्भ | 26. लीलासञ्चरण |
| 10. जलस्तम्भ Cp. VII. 28. | 27. गजतुरगपरीक्षण Cp. I. 29,
30, II. 53, 54. |
| 11. गीतनाद Cp. I. 5, III. 1,
VI. 1, etc. | 28. पुरुषस्त्रीलक्षण. Cp. I. 27,
28, II. 51, 52, IX. 20, 21. |
| 12. तालमान Cp. IV. 11,
IX. 6. | 29. सुवर्णरत्नभेद Cp. VIII. 35. |
| 13. मेघवृष्टि Cp. IX. 53. | 30. अष्टादशलपिपरिच्छेद Cp.
VIII. 59, I. 1, II. 3, etc. |
| 14. फलाकृष्टि Cp. IX. 51. | 31. तत्कालबुद्धि |
| 15. आरामरोपण Cp. III. 41,
VII. 20. | 32. वास्तुसिद्धि Cp. IV. 28,
III. 37. |
| 16. आचारगोपन | 33. वैद्यकक्रिया Cp. IX. 29,
IV. 29. |
| 17. धर्मविचार Cp. IV. 4. | |

* Incorrectly printed as ‘vādi’.

- | | |
|---|--|
| 34. कामविक्रिया | 50. सकलभाषाविशेष Cp. VII. 7,
etc. |
| 35. घटभ्रम Cp. IX. 48. | 51. अभिधानज्ञान Cp. III. 55. |
| 36. सारिपरिश्रम Cp. I. 13. | 52. आभरणपरिधान Cp. III. 19,
VIII. 3. |
| 37. अञ्जनयोग Cp. IX. 37,
VII. 42, 56. | 53. भृत्योपचार |
| 38. चूर्णयोग Cp. 'curna-
juttin' (See p. 17
above). | 54. गृहाचार |
| 39. हस्तलाघव Cp. III. 22. | 55. काव्यकरण Cp. III. 54. |
| 40. वचनपाठव | 56. परनिराकरण |
| 41. भोज्यविधि Cp. I. 15. | 57. रन्धन Cp. III. 23,
VII. 19, etc. |
| 42. वाणिज्यविधि Cp. VII. 60,
IX. 38. | 58. केशवन्धन Cp. II. 20. |
| 43. मुखमण्डन | 59. वीणानिनाद Cp. II. 36. |
| 44. शालिखण्डन | 60. वितण्डावाद |
| 45. कथाकथन | 61. अङ्गविचार Cp. I. 2,
II. 3. |
| 46. पुष्पप्रथन Cp. VIII. 5. | 62. लोकव्यवहार Cp. IX. 54. |
| 47. वक्रोक्ति | 63. अन्ताक्षरिका Cp. III. 29. |
| 48. काव्यशक्ति Cp. VII. 4. | 64. प्रश्नप्रहेलिका Cp. I. 19,
III. 28. |
| 49. स्फारवेष | |

Berliner Verzeichnis II, pp. 663, 664.

APPENDIX F

The 64 'tantras', according to Lakshmīdhara's commentary on Saundaryalaharī 31 are the following :—

महामायाशम्बर १ च योगिनीजालशम्बरम् २ ।

तत्त्वशाम्बरक ३ चैव भैरवाष्टकमेव च ४-११ ॥

बहुरूपाष्टक १२-१९ चैव यामलाष्टक २०-२७ मेव च ।

चन्द्रज्ञानं २८ मालिनी २९ च महासंमोहन ३० न्तथा ॥

वामजुष्टं ३१ महादेवं ३२ वातुलं ३३ वातुलोत्तरम् ३४ ।

हृद्भेद ३५ न्तान्नभेद ३६ च गुह्यतन्त्र ३७ च कामिकम् ३८ ॥

कलावादं ३९ कलासार ४० न्तथान्यत्कुण्डिकामतम् ४१ ।
 मतोत्तर ४२ च वीणाख्य ४३ ओतल ४४ ओतलोत्तरम् ४५ ॥
 पञ्चामृतं ४६ रूपभेदं ४७ भूतोद्गमर ४८ मेवच ।
 कुलसारं ४९ कुलोद्गीशं ५० कुलचूडामणि ५१ न्तथा ॥
 सर्वज्ञानोत्तर ५२ चैव महाकालीमत ५३ न्तथा ।
 अरुणेशं ५४ मोदिनीशं ५५ विकुण्ठेश्वर ५६ मेवच ॥
 पूर्व ५७ पश्चिम ५८ दक्ष ५९ च उत्तर ६० अनिरुत्तरम् ६१ ।
 विमलं ६२ विमलोत्त ६३ च देवीमत ६४ मतःपरः ॥

The names of 'tantras' 4-11, 12-19, and 20-27 are ;—

4. सिद्धभैरव.	12. ब्राह्मीतन्त्रम्.	20. रुद्रयामलम्.
5. मायिकभैरव.	13. माहेश्वरीतन्त्रम्.	21. ब्रह्मयामलम्.
6. कङ्कालभैरव.	14. कौमारीतन्त्रम्.	22. विष्णुयामलम्.
7. कालाग्निभैरव.	15. वैष्णवीतन्त्रम्.	23. देवीयामलम्.
8. शक्तिभैरव.	16. वाराहीतन्त्रम्.	24. गणपतियामलम्.
9. योगिनीभैरव.	17. इन्द्राणीतन्त्रम्.	25. स्कन्दयामलम्.
10. महाभैरव.	18. चामुण्डातन्त्रम्.	26. सूर्ययामलम्.
11. भैरवनाथ.	19. शिवदूतीतन्त्रम्.	27. चन्द्रयामलम्.

Saundaryalahari, Mysore Government Edition, p. 80.
 Oxford Catalogue p. 109.

For a variant of this list, see Nityāshodaṣi-
 kārṇava, Ānandāśrama Series, Poona.

INDEX OF KALĀS

°° The numbers refer to the pages.

अक्षक्रीडा 21.
 अक्षरमुष्टिकाकथनम् 30, 34.
 अक्षविधानम् 43.
 अधुणवेधित्वम् 20
 अग्निकर्म 21.
 अग्निक्रमः 43.
 अग्निसंसूचनम् 58.
 अग्निसंस्तम्भः 47.
 अङ्कुशग्रहपाशग्रहाः 20.
 अजम् 17.
 अजपहेलियम् 11.
 अजलक्षणम् 23.
 अञ्चितम् 40.
 अञ्जनम् 49, 58.
 अञ्जनक्रिया 49.
 अद्वावयम् 11.
 अद्रिजुद्धम् 15.
 अण्णविहिम् 11.
 अदृश्यकरणी 49.
 अधीतम् 21.
 अनुप्राप्तिलेखास्मृतिः 43.
 अनुप्रोत्साहनम् 44.
 अनेकतन्तुसंयोगैः पटबन्धः 54.
 अनेकरूपाविर्भावकृतिज्ञानम् 52.
 अनेकवाद्यविकृतौतद्वादनेज्ञानम् 52.
 अनेकासनसन्धानैरतेज्ञानम् 52.

अन्तस्सन्दंशः 39.
 अपयानम् 20.
 अपराधिजनेसुयुक्तताडनज्ञानम् 56.
 अपहस्तकम् 40.
 अभिधानकोशछन्दोविज्ञानम् 31.
 अभिलक्षितेशेयत्रायस्त्रनिपातनम् 53.
 अम्बरक्रिया 51.
 अम्बार्थाः शब्दाः 39.
 अम्बुज्ञता 59.
 अयःकृतिः 59.
 अर्थविद्या 24.
 अर्थचन्द्रः 38.
 अर्थपीडितकम् 40.
 अवपीडितकम् 38.
 अवमर्दनम् 39.
 अवलम्बितम् 40.
 अश्मक्रिया 49.
 अश्वगतिकौशलम् 46.
 अश्वपृष्ठम् 39.
 अश्वलक्षणम् 22.
 असियुद्धम् 60.
 असिलक्खणम् 12.
 असिस्तम्भः 51.
 आकरज्ञानम् 32.
 आकर्षकक्रीडा 34.

आकर्षक्रीडा 31.
 आकर्षणम् 48.
 आकारज्ञानम् 33.
 आख्यातम् 22.
 आख्यायिकाः 37.
 आच्छुरितकम् 38.
 आजीवज्ञानम् 42.
 आदानम् 56.
 आभरणविहिम् 12.
 आम्रचूषितकम् 39.
 आयुःप्राप्तिः 43.
 आयुर्वेदः 36.
 आरोहणम् 37.
 आलेख्यम् 26, 33.
 आशुकारित्वम् 56.
 आश्चर्यम् 24.
 आसवकर्म 51.
 आससिक्खम् 14.
 आसुरम् 24.
 आस्वाद्यविधानम् 42.
 आहवकर्म 50.
 इतिहासः 23.
 इतिहासागमाद्याः 45.
 इत्थीलक्खणम् 12.
 इन्द्रजालम् 58.
 इन्द्रजालः 37.
 इन्द्राणिकम् 39.
 इध्वस्त्रम् 19.
 ईसन्धम् 14.
 उच्चाटनम् 48.

उच्छूनकम् 38.
 उत्पलपत्रकम् 38.
 उत्पीडितकम् 40.
 उत्फुल्लकम् 39.
 उत्सादनम् 32.
 उत्सादनेसंवाहनेकेशमर्दनेचक्रौशलम् 30.
 उत्साहनम् 33.
 उदकघातः 26, 33.
 उदकवाद्यम् 26, 33.
 उद्घृष्टकम् 38.
 उद्भ्रान्तम् 38.
 उद्याननिर्याणम् 20.
 उपकरणक्रिया 42.
 उपसृप्तकम् 39.
 उपस्थानविधिः 43.
 ऊरुपगूहनम् 40.
 ऊर्ध्वगतिः 59.
 ऐणेयम् 40.
 ऐन्द्रजालयोगाः 27.
 ऐन्द्रजालिकम् 49.
 औषधसिद्धिः 49.
 कञ्चुकादीनांसीवनेविज्ञानम् 55.
 कडगल्लेय्यम् 16.
 कथाः 37.
 करणादानम् 43.
 कर्कटकम् 40.
 कर्णपत्रभङ्गः 27.
 कर्तरी 40.
 कविता 58.

कवित्वम् 45.
 कागणिलक्खणम् 13.
 काचपात्रादिकरणेविज्ञानम् 56.
 कामशास्त्रम् 45.
 कालवञ्चनम् 48.
 काव्यक्रिया 31.
 काव्यव्याकरणम् 21.
 काव्यसमस्यापूरणम् 29.
 काव्यानि 37.
 काव्यालङ्कारनाटकम् 45.
 काष्ठकृतिः 59.
 कीला 40.
 कुङ्कुडलक्खणम् 12.
 कूजितम् 39.
 कृत्रिमस्वर्णरत्नादिक्रियाज्ञानम् 55.
 कृषिः 50, 58.
 केशमार्जनकौशलम् 32.
 कैटभेश्वरलक्षणम् 23.
 कौचुमाराश्वयोगाः 27.
 कौतुमारयोगाः 32.
 क्रियाकल्पः 23, 31.
 क्रियामार्गः 43.
 क्रियाविकल्प 34.
 क्रीडाकौशलम् 42.
 कुङ्कुप्रसादनम् 44.
 क्रौञ्चसारणयोगाः 33.
 क्षारनिष्कासनज्ञानम् 53.
 क्षिप्रग्रहणम् 43.
 क्षीरनीरकम् 38.
 क्षुरकर्म 55.
 क्षुरीबन्धनम् 59.
 खड्गबन्धनम् 59.

खड्गस्तम्भः 47.
 खण्डाभ्रकम् 38.
 खन्धावारनिवेसम् 14.
 खन्धावारमाणम् 14.
 खन्यावादः 47.
 गजपृष्ठानि 35.
 गजशास्त्रम् 50.
 गजाश्वरथगत्या युद्धसंयोजनम् 54.
 गजाश्ववृषभोद्याणाम्पत्याणादिक्रिया 56.
 गजाश्वादेर्गतिशिक्षा 54.
 गजोपमर्दितम् 40.
 गणलक्खणम् 17.
 गणियम् 9.
 गतम् 43.
 गन्धजुत्तिम् 11.
 गन्धयुक्तिः 25, 27.
 गन्धर्वशास्त्राणि 36.
 गन्धवादः 47.
 गयलक्खणम् 12.
 गरुडवूहम् 18.
 गर्दभाक्रान्तम् 40.
 गह्वरियम् 30.
 गायम् 9.
 गायकत्वम् 45.
 गरुडदमनम् 60.
 गाहम् 11.
 गीतम् 26, 41, 57.
 गीतपठितम् 21.
 गीतियम् 17.
 गीयम् 9.
 गुह्यगूहनम् 44.
 गुह्यस्यसंस्पर्शनानुलोम्यम् 44.

गूढकम् 38.
 गूढराशिः 43.
 गृहभाण्डादेर्माजनेविज्ञानम् 55.
 गोणलक्षणम् 12.
 गोयूथिकम् 40.
 गोलक्षणम् 23.
 ग्रन्थरचितम् 21.
 ग्रहगणितम् 36.
 ग्रहदानम् 43.

 घटबन्धः 59.
 घटभ्रमः 59.
 घटिकासिद्धिः 31.
 घट्याद्यनेकयन्त्राणां वाद्यानां कृतिः 54.

 चक्रबृहम् 18.
 चकलक्षणम् 12.
 चटकविलसितम् 39.
 चन्दयलक्षणम् 13.
 चन्दलक्षणम् 13.
 चम्मखेडुम् 16.
 चम्मलक्षणम् 13.
 चम्हरेवत्तम् 16.
 चरमस्वापाविधिः 44.
 चर्मक्रिया 51.
 चर्मणां मार्दवादिक्रियाज्ञानम् 55.
 चापचक्रचर्मकृपाणशक्तितोमरपरशुगदा -
 प्रभृतय आयुधविशेषाः 35.
 चारम् 14.
 चित्रकर्म 35.
 चित्रकृतिः 60.
 चित्रयोगाः 32, 33.
 चित्ररोहक्रिया 51.

चित्रविधिः 41.
 चित्रशाकापूपभक्ष्यविकारक्रिया 32.
 चित्राचित्रविधिः 43.
 चित्राद्यालेखनम् 54.
 चित्राश्वयोगाः 27.
 चिरक्रिया 56.
 चुण्णजुत्तिम् 17.
 चुम्बितकम् 39.
 चोरकर्म 49.

 छागलम् 40.
 छत्तलक्षणम् 12.
 छन्दः 23, 58.
 छन्दांसि 37.
 छरुप्पवायम् 14.
 छलव्यामोहनम् 43.
 छलितकयोगाः 31.
 छेद्यम् 20.

 जघनोपगूहनम् 40.
 जणवायम् 10.
 जतुयन्त्रम् 24.
 जनानुवृत्तिः 59.
 जलवाय्वग्निसंयोगनिरोधैः क्रिया 54.
 जलस्तम्भः 47.
 जलानां संसेचनं संहरणम् 56.
 जलेबाह्यादिभिस्तरणम् 55.
 जवितम् 19.
 जालवादः 47.
 जुद्धम् 15.
 जुद्धातिजुद्धम् 15.
 जूयम् 10.
 जृम्भितकम् 40.

ज्योतिः 23, 58.

तक्षकर्माणि 29.

तक्षणम् 29.

तटाकवापीप्रासादसमभूमिक्रिया 54.

तण्डुलकुसुमबलिप्रकाराः 32, 33.

तण्डुलकुसुमबलिविकाराः 26.

तत्वम् 58.

तरणम् 19, 20, 37.

तरुणीपडिकम्म 12.

तर्कः 58.

तर्ककर्माणि 32.

ताम्बूलरक्षादिकृतिविज्ञानम् 56.

तालम् 57.

तिर्यक् 38.

तिर्यग्योनिचिकित्सितम् 42.

तिलतण्डुलकम् 38.

तिलमांसादिस्नेहानां निष्कासनेकृतिः 55.

तुरगलक्षणम् 50.

तुरगवयोज्ञानम् 35.

तुरगशिक्षा 57.

तुरगाधिरूढकम् 40.

तुरङ्गमाः 35.

तुल्याभिहारः 43.

दृगमद्वयम् 11.

दण्डजुद्धम् 15.

दण्डयुद्धम् 60.

दण्डलक्खणम् 12.

दन्तव्यापारः 36.

दशदोहलविद्याः 50.

दशनवसनाङ्गरागः 26.

दारुकर्म 36.

दारुक्रिया 49.

दुग्धदोहादिघृतान्तं विज्ञानम् 55.

दुरोदरम् 45.

दुर्वाचकयोगाः 28, 33.

दूकृतम् 39.

दूरकरणी 50.

दृग्युद्धम् 60.

दृग्वादः 57.

दृढप्रहारित्वम् 21.

दृष्टिः 59.

देशभाषाः 45.

देशभाषाविज्ञानम् 30.

दोभाकरम् 13.

दोभागकरम् 13.

दोर्युद्धम् 60.

द्यूतविशेषाः 31.

द्यूताद्यनेकक्रीडाभिरञ्जनम् 52.

द्विरदशिक्षा 57.

धनुवेदम् 14.

धनुष्कलापः 19.

धम्मखेड्डम् 16.

धर्मशास्त्रम् 35.

धाउपागम् 15.

धातुवादः 29, 47, 57.

धातुसाङ्ख्यपार्थक्यकरणम् 53.

धात्वादीनां संयोगापूर्वविज्ञानम् 53.

धात्वौषधीनां संयोगक्रियाज्ञानम् 53.

धारणमातृका 30.

धेनुकम् 40.

नखदन्तयोर्विचारौ 43.

नगरनिवेशम् 14.

- नगरमाणम् 14.
 नट्टम् 9.
 नयज्ञानम् 43.
 नरदष्टिवञ्चनम् 49.
 नाटकाख्यायिकादर्शनम् 29, 33.
 नाटकानि 37.
 नाट्यम् 22, 32.
 नानादेशीयवर्णानां सुसम्यग्लेखनेज्ञानम् 56.
 नारदीयप्रभृतयोगन्धर्ववाद्यविशेषाः 35.
 नारीलक्ष्म 57.
 नालियाखेडम् 15.
 निगमः 23.
 निजीवम् 16.
 निजुद्धम् 15.
 निमित्तम् 39.
 निमित्तज्ञानम् 30.
 निरुक्तम् 23.
 निर्घण्टुः 23.
 निर्घातः 39.
 नीवीछंसनम् 43.
 नृत्तम् 43.
 नृत्यम् 26, 41, 57.
 नृपसेवनम् 58.
 नृलक्ष्म 58.
 नेपथ्यप्रयोगाः 27.
 नेपथ्ययोग 33.
 नौकारथादियानानां कृतिज्ञानम् 54.
 न्यायशास्त्रम् 50.
 पटहः 57.
 पट्टिकावेत्रबाणविकल्पाः 32, 34.
 पट्टिकावेत्रवानविकल्पाः 29.
 पठितम् 57.
 पाडिचारम् 14.
 पाडिबूहम् 14.
 पाडिवारम् 14.
 पत्तगच्छेयम् 16.
 पत्तछेयम् 16.
 पत्रच्छेदनम् 59.
 पत्रच्छेद्यम् 25, 36, 41.
 पदम् 34.
 पदादिन्यासतः शस्त्रसन्धाननिक्षेपः 53.
 पयसिप्लवचातुर्यम् 48.
 परमार्थकौशलम् 44.
 परावृत्तकम् 40.
 परिमृष्टकम् 39.
 पलितविनाशः 57.
 पशुचर्माङ्गनिर्हारज्ञानम् 55.
 पहेलियम् 17.
 पादुकासिद्धिः 48.
 पानकरसरागासवयोजनम् 28.
 पानविहिम् 11.
 पार्श्वतोदष्टम् 39.
 पाशुपाल्यम् 50.
 पाषाणधात्वादिदृतिभस्मकरणम् 53.
 पासयम् 17.
 पीडितम् 40.
 पीडितकम् 40, 38, 39 (twice).
 पुक्खरगयम् 10.
 पुनःपुनर्निरीक्षणम् 44.
 पुराणम् 23.
 पुरिसलक्खणम् 12.
 पुरुषलक्षणम् 22, 35.
 पुरुषस्य भावग्रहणम् 43.
 पुष्पवटिकानिमित्तज्ञानम् 33.
 पुष्पशकटिका 30.

पुष्पास्तरणम् 26.
 पुस्तकर्म 41.
 पुस्तकवाचनम् 29.
 पुस्तुकव्यापारः 36.
 पोरेकचम् 10.
 पोरेकव्वम् 10.
 पोरेवचम् 10.
 प्रतिदानम् 56.
 प्रतिमाला 28, 33.
 प्रत्यङ्गदानम् 43.
 प्रमाणम् 35.
 प्रवासमणिः 38.
 प्रसृतकम् 40.
 प्रस्थितानुगमनम् 44.
 प्रहेलिका 28.
 प्रहेलिकाकूटवाणीविज्ञानम् 32.
 प्राक्चलितम् 18.
 प्रेङ्खोलितकम् 39.
 प्लवितम् 19.
 पुतयः 37.
 फलभृत् 59.
 फलाकृष्टिः 59.
 फूत्कृतम् 39.
 बहिस्सन्दंशः 39.
 बार्हस्पत्यम् 24.
 बालक्रीडनकानि 31.
 बाहुजुद्धम् 15.
 बाहुव्यायामः 20.
 बिन्दुः 38.
 बिन्दुमाला 38.
 बीजग्रहणम् 43.

बूहम् 14.
 भरतादिप्रणीतानि वृत्तशास्त्राणि 35.
 भाषा 58.
 भुम्भकम् 40.
 भूतदमनम् 60.
 भूरुहाणां दोहदम् 46.
 भूषणयोजनम् 27.
 भेद्यम् 20.
 भेरीपरीक्षा 57.
 भ्रमरकः 39.
 मकरन्दासवादीनां मद्यादीनां कृतिः 52.
 मणिपागम् 15.
 मणिभूमिकार्कम् 26.
 मणिमाला 38.
 मणिरागः 22.
 मणिरागज्ञानम् 32.
 मणिरागाकरज्ञानम् 29.
 मणिलक्खणम् 12.
 मणिसिद्धिः 49.
 मण्डलम् 38.
 मधुसिन्धुम् 11.
 मधूच्छिष्टकृतम् 25.
 मनोनुकूलसेवायाः कृतिज्ञानम् 56.
 मन्तगयम् 13.
 मन्त्रवादः 57.
 मन्त्रासिद्धिः 49.
 मन्त्रौषधसिद्धिः 51.
 मन्थनम् 39.
 मयूरपदकम् 38.
 मर्दनम् 59.
 मर्मभेदनम् 59.

मर्मभेदित्वम् 21.
 मल्लशास्त्रम् 46.
 महाभारतपुराणेतिहासरामायणानि 37.
 महेन्द्रजालः 51.
 मागहियम् 11.
 मानविधिः 42.
 मानसी 31.
 मायाकृतम् 22.
 मायाकृतम्पाषण्डसमयज्ञानम् 42.
 मारणम् 48.
 मार्जारललितकम् 40.
 माल्यग्रथनविकल्पाः 27.
 माल्यग्रन्थनम् 22.
 माल्यविधिः 41.
 मिढयलक्खणम् 12.
 मिण्डलक्खणम् 12.
 मिश्रितलक्षणम् 23.
 मुष्टिजुद्धम् 15.
 मुद्रा 59.
 मुरजः 57.
 मुष्टिः 40.
 मुष्टिवन्धः 20.
 मुष्टियुद्धम् 60.
 मृगपक्षिस्तम् 24.
 मृगयारतिः 50.
 मृत्क्रिया 49.
 मृत्तिकाकाष्ठपाषाणधातुभाण्डादिसत्क्रिया
 54.
 मृत्सिद्धिः 48.
 मृदु 40.
 मृदुक्रोधप्रवर्तनम् 44.
 मेषकुक्कुटलावकयुद्धविधिः 30.
 मेषयुद्धादिकौशलम् 51.

मोहनम् 51.
 म्लेच्छितकविकल्प 34.
 म्लेच्छितविकल्पाः 30.
 यज्ञकल्पः 15.
 यन्त्रप्रयोगः 37.
 यन्त्रमातृका 30.
 यन्त्रमातृकाधारणमातृकासंवाच्यम् 33.
 यानविधिः 42.
 यावदिक्षुविकाराणां कृतिज्ञानम् 53.
 युद्धम् 43.
 योगः 23, 58.
 रङ्गपरिज्ञानम् 42.
 रतिकौशलम् 51.
 रतितन्त्राणि 37.
 रत्नपरीक्षा 42.
 रत्नपरीक्षाः 36.
 रत्नलक्ष्म 57.
 रत्नशास्त्रम् 46.
 रत्नानां वेधादिसदसज्ज्ञानम् 54.
 रथः 19.
 रथगतिकौशलम् 46.
 रथचर्याः 35.
 रदकृतिः 59.
 रसवादः 47.
 रसायनम् 58.
 रहस्सगयम् 13.
 राजनीतयः 35.
 राहुचरियम् 13.
 रूतम् 42.
 रुदितम् 39.
 रूपम् 21.

रूपकर्म 21.

रूपसङ्ख्या 43.

रूप्यरत्नपरीक्षा 29.

रुबम् 9.

रेखा 38.

लङ्घनम् 37.

लङ्घितम् 18.

लतावेष्टितकम् 38.

लयाञ्जुद्धम् 18.

ललाटिका 40.

लावकुकुटमेपादियुद्धकारणकौशलम् 50.

लावुकायोधनप्रौढिः 51.

लास्यम् 22.

लिखितम् 57.

लिपिः 58.

लिपिकर्म 45.

लिपिज्ञानम् 41, 45.

लिपिमुद्रागणनासङ्ख्यासालम्भधनुर्वेदाः

18.

लेख्यकर्म 36.

लेणविहिम् 11.

लेपनम् 59.

लेपादिसत्कृतिः 55.

लेहम् 9.

लोकज्ञानम् 42.

लोकाचारः 59.

लोहक्रिया 49.

लोहाभिसारशस्त्रास्त्रकृतिज्ञानम् 56.

वंशः 57.

वचनञ्चोदारम् 41.

वट्टखेडम् 16.

वत्तविहिम् 17.

वत्थुनिवेशम् 14.

वत्थुमाणम् 14.

वत्थुविजम् 17.

वयस्तम्भः 47.

वराहघातः 39.

वराहघृष्टकम् 40.

वराहचर्वितकम् 38.

वर्मक्रिया 49.

वलिविनाशः 57.

वश्यम् 48.

वस्त्रगोपनानि 31.

वस्त्ररागः 22.

वस्त्रसम्मार्जनम् 55.

वाइयम् 10.

वाक्यम् 34.

वाक्सिद्धिः 51.

वाग्युद्धम् 60.

वाचकम् 46.

वाचस्तम्भः 47.

वाडवकम् 39.

वाणिज्यम् 50, 58.

वाद्यम् 26, 41.

वाद्यनृत्यम् 21.

वाद्यसङ्केततो व्यूहरचनादि 53.

वायुसंसूचनम् 58.

वायुस्तम्भः 51.

वारम् 14.

वारिक्रीडितकम् 40.

वास्तुविद्या 29.

वास्तुविद्याः 36.

विचित्रशाकयूपभक्ष्यविकारक्रिया 28.

विज्जागयम् 13.

विजृम्भितकम् 39.
 विडम्बितम् 22.
 विदलकर्म 25.
 विद्धकम् 38.
 विद्धा 40.
 विद्वेषणम् 48.
 विलेवणविहिम् 17.
 विविधासनमुद्राभिर्देवतातोषणम् 54.
 विशेषकच्छेद्यम् 26, 33.
 विशेषकौशलम् 42.
 विषापहरणम् 36.
 वीणा 21, 57.
 वीणाडमरुकवाद्यानि 28.
 वीणामुरजकांस्यतालदर्दुरपुटप्रभृतीनि
 वाद्यानि 35.
 वृक्षादिप्रसवारोपपालनादिकृतिः 53.
 वृक्षाद्यारोहणेज्ञानम् 55.
 वृक्षायुर्वेदयोग 34.
 वृक्षायुर्वेदयोगाः 29.
 वृत्रक्रिया 49.
 वृषाघातः 39.
 वृषाधिरूढकम् 38.
 वृष्टिज्ञता 59.
 वेणुक्रिया 49.
 वेणुनृणादिपात्राणां कृतिज्ञानम् 56.
 वेणुदारितकम् 40.
 वेदाः 23.
 वैशिकम् 24.
 वेष्टितकम् 39.
 वैचक्षप्यम् 42.
 वैजयिकीनांविद्यानां ज्ञानम् 31, 34.
 वैतालिकीनांविद्यानां ज्ञानम् 34.
 वैद्यकम् 58.

वैजयिकीनांविद्यानां ज्ञानम् 31, 34.
 वैशेषिकम् 23.
 व्याकरणम् 23.
 व्याघ्रनखम् 38.
 व्याघ्रावस्कन्दितम् 40.
 व्यायामविद्याः 35.
 व्यायामिकीनांविद्यानां ज्ञानम् 32.
 शकुनम् 58.
 शकुनिरुतम् 22.
 शकुनिरुतज्ञानम् 36.
 शब्दवेधित्वम् 21.
 शयनरचनम् 26.
 शय्यास्तरणसंयोगपुष्पादिग्रथनम् 52.
 शरीरसंस्कारः 42.
 शल्यगूढाहतौसिराव्रणव्यधेज्ञानम् 52.
 शशङ्कुतकम् 38.
 शाकुनम् 46.
 शिक्षा 23.
 शिखाबन्धः 20.
 शिशोस्संरक्षणधारणक्रोडनेज्ञानम् 56.
 शुक्रसारिकाप्रलापनम् 30.
 श्लाघितकम् 40.
 शेखरकापीडयोजनम् 27.
 शौनम् 40.
 श्रुतिः 58.
 सउणख्यम् 17.
 संवाच्यम् 32.
 संवाहनम् 42.
 संवाहितम् 22.
 सङ्ख्या 57.
 सङ्गरः 39.

- सङ्घाटकम् 40.
 सजीवम् 16.
 सन्दंशः 39.
 सन्दंशिका 40.
 सन्ध्याघाताकृष्टिभेदैर्मल्लयुद्धम् 53.
 सभासञ्चारम् 14.
 समम् 38, 39.
 समतलकम् 40.
 समतालम् 10.
 समस्तावधानम् 50.
 समानार्थताकृतार्थता 44.
 सम्पाठ्यम् 31.
 सम्पुटः 39.
 सम्पुटकम् 39.
 सम्भावम् 14.
 सम्यक्क्रोधनिवर्तनम् 44.
 सयणविहिम् 11.
 सरगयम् 10.
 सर्पदमनम् 60.
 सर्वदेशभाषाः 37.
 सर्वलिपयः 37.
 सर्वशिल्पानि 37.
 सर्वसञ्ज्ञाः 37.
 सर्वाण्यपदानानि 46.
 सर्वाः द्यूतकलाः 36.
 साङ्ख्यम् 23.
 सामुद्रिकम् 46.
 सारथ्यम् 54.
 साधुपातंरमणायशपनम् 44.
 सिलोगम् 11.
 सीराद्याकर्षणज्ञानम् 55.
 सीव्यम् 42.
 सुगन्धयुक्तिः 32.
 सुतक्खेडम् 15.
 सुनीतिः 58.
 सुसापरिल्यागः 44.
 सुरङ्गोपभेदः 36.
 सुवण्णजुत्तिम् 17.
 सुवर्णपागम् 15.
 सुशौर्यम् 20.
 सूचीकर्म 25, 32.
 सूचीवानकर्माणि 28.
 सूचीवापकर्माणि 28.
 सूकृतम् 39.
 सूत्रकीडा 28, 33.
 सूत्रादिरञ्जुकरणाविज्ञानम् 54.
 सूदकर्म 46.
 सूचरियम् 13.
 सोभाकरम् 13.
 सोभागकरम् 13.
 स्तनालिङ्गनम् 40.
 स्तनितम् 39.
 स्त्रीपुंसोर्वस्त्रालङ्कारसन्धानम् 52.
 स्त्रीलक्षणम् 22.
 स्थाम 20.
 स्थितम् 38.
 स्थैर्यम् 19.
 स्पृष्टकम् 38.
 स्फालनम् 20.
 स्वप्नः 58.
 स्वप्नाध्यायः 22.
 स्वरवञ्चनम् 49.
 स्वरशास्त्रम् 46.
 स्वरागप्रकाशनम् 43.
 स्वर्णपरीक्षा 50.
 स्वर्णादीनान्तुयाथार्थविज्ञानम् 55.

स्वर्णाद्यलङ्कारकृतिः 55.

स्वशपथक्रिया 44.

हृत्थिसिक्खम् 14.

हयलक्खणम् 12.

हर्षणम् 44.

हस्तलाघवम् 27.

हस्तिग्रीवा 19.

हस्तिलक्षणम् 23.

हस्तिशिक्षा 35.

हावभावादिसंयुक्तं नर्तनम् 52.

हास्यम् 22.

हिङ्कारः 39.

हिरण्यजुत्तिम् 17.

हिरण्यपागम् 15.

हिरण्यवादम् 15.

हीनमध्यादिसंयोगवर्णाद्यैरञ्जनम् 54.

हीनादिरससंयोगान्नादिसम्पाचनम् 53.

हुलः 39.

हेतुविद्या 24.

ERRATA.

Page	Line	For	Read
Preface	17	Bhāgavata	Bhāgavata X. 45-36.
1	2 (from bottom)	Ṣabdakulpadruma	Ṣabdakalpadruma
10	10	Harṣhakūla	Harshakūla
12	9	पुरिसलक्खणम्	पुरिसलक्खणम्
„	20	menda-	menda-
„	21	Digha	Digha
„	29	Garuda	Garuḍa
17	Last	Valthuvijjaṃ	Vatthuvijjaṃ
18	4	‘garuda’	‘garuḍa’
„	5	Sagadavūhaṃ	Sagaḍavūhaṃ
24	3	saṭṭhitantaṃ’	saṭṭhitantaṃ’
27	8	—dakas’	—ḍakas’
32	7	‘nāṭyaṃ’	‘nāṭyaṃ’
„	19	‘utsadānaṃ’	‘utsādanaṃ’
37	4	VII. 50	VIII. 50.
41	17	IV. 12	IV. 11
43	29	VI. 13-28	V. 13-28
45	6	Kāvyaphrakāṣa	Kāvyaprakāṣa
48	17	‘stambhaṇaṃ’	‘stambhanaṃ’
51	16	आसंवकर्म	आसवकर्म

642-2976 14 DAY USE

642-2976 14 DAY USE

RETURN TO DESK FROM WHICH BORROWED
PERIODICAL DESK

This book is due on the last date stamped below, or
on the date to which renewed.

Renewed books are subject to immediate recall.

[illegible]

LD 21-40m-1,'68
(H7452s10)476

General Library
University of California
Berkeley

